National Bureau of Standards Library, N.W. Bldg

APR 6 1964

CRPL-F 235 PART A

FOR OFFICIAL USE

Reference book not to be taken from the library.

# PART A IONOSPHERIC DATA

ISSUED MARCH 1964

U. S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS CENTRAL RADIO PROPAGATION LABORATORY BOULDER, COLORADO



CRPL-F 235 PART A

# NATIONAL BUREAU OF STANDARDS CENTRAL RADIO PROPAGATION LABORATORY BOULDER, COLORADO

Issued 1.8 Mar.1964

# IONOSPHERIC DATA

## CONTENTS

	Page
Ionospheric Data	. ii
Table of Smoothed Observed Zurich Sunspot Numbers .	. iii
World-Wide Sources of Ionospheric Data	. iv
Tables of Ionospheric Data	. 1
Graphs of Ionospheric Data	. 26
Index of Tables and Graphs of Ionospheric	
Data in CRPL-F235 (Part A)	. 51

### IONOSPHERIC DATA

The CRPL-F series bulletins are issued as part of the responsibility of the Central Radio Propagation Laboratory for the exchange and distribution of ionospheric and related geophysical data. Part A, "Ionospheric Data," and Part B, "Solar-Geophysical Data," of the CRPL-F series present a variety of data in convenient form for use in research in radio propagation and the ionosphere and in other geophysical problems.

The current form of the tables of ionospheric data provides the monthly medians and, in addition, the number of values entering into the median determination (count) for all ionospheric characteristics listed. Also, when available, the upper and lower quartile values indicated by UQ and LQ in the tables, are listed for foF2, h'F2, h'F, and M(3000)F2. Quartile values are not listed for the other characteristics because of space limitations. The tables are prepared by IBM machine methods.

Beginning with CRPL-F221, Part A, "Ionospheric Data," the hourly median values for the graphs of critical frequencies and M(3000)F2 were plotted by machine methods instead of manually, as in earlier issues. Graphs of critical frequencies and M(3000)F2 will continue to appear. Graphs of percentage of time of occurrence for fEs and virtual heights of the regular ionospheric layers are no longer included. Data on percentage of time of occurrence of fEs above 3, 5, and 7 Mc are available from the CRPL and the IGY World Data Center for Airglow and Ionosphere.

For many years, the tables of ionospheric data appearing in the F series, Part A, listed values of medians recomputed at CRPL. While this practice enforced a certain uniformity, it was subject to some valid criticism for tampering with the original data. The tables and graphs now show the ionospheric data as they are provided by the originating laboratory. Responsibility for the accuracy and reliability of the data rests entirely with the originator.

Medians of data for the U.S. stations are computed in accordance with the recommendations of the World-Wide Soundings Committee. Data will appear in the F series, Part A, only when the complete daily-hourly tabulations have been received by the CRPL or the IGY World Data Center A for Airglow and Ionosphere.

Information on symbols, terminology, and conventions may be found in the "URSI Handbook of Ionogram Interpretation and Reduction, of the World-Wide Soundings Committee," edited by W. R. Piggott and K. Rawer (Elsevir, 1961), which supersedes previous documents. A list of symbols is available from CRPL on request.

The following table contains the latest available information on smoothed observed Zurich sunspot numbers, beginning with the minimum of April 1954. Final numbers are listed through June 1963, the succeeding values being based on provisional data.

### Smoothed Observed Zurich Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	10	12
1955	14	16	19	23	29	35	40	46	55	64	73	81
1956	89	98	109	119	127	137	146	150	151	156	160	164
1957	170	172	174	181	186	188	191	194	197	200	201	200
1958	199	201	201	197	191	187	185	185	184	182	181	180
1959	179	177	174	169	165	161	156	151	146	141	137	132
1960	129	125	122	120	117	114	109	102	98	93	88	84
1961	80	75	69	64	60	56	53	52	52	51	50	49
1962	45	42	40	39	39	38	37	35	33	31	30	30
1963	29	30	30	29	29	28	28	27				
1964												

#### Units of Ionospheric Data Tables

foF2, foEs - - - Tenths of a megacycle

foF1, foE - - - Hundredths of a megacycle

h'F2, h'F, h'E - Kilometers

M(3000)F2 - - - Hundredths

NOTE: Occasionally, when the median falls between two of the observed values, the median is carried an extra decimal place beyond these units. Those cases are easily identifiable by the extra digit appearing to the right of the number, in a column usually left blank.

MED - Median

CNT - Count

UQ - Upper Quartile

LQ - Lower Quartile

THE IONOSPHERIC DATA GIVEN IN TABLES 1 TO 100 AND FIGURES 1 TO 100 WERE ASSEMBLED BY THE CENTRAL RADIO PROPAGATION LABORATORY FOR ANALYSIS, CORRELATION AND DISTRIBUTION. THE FOLLOWING ARE THE SOURCES OF THE DATA IN THIS ISSUE.

COMMONWEALTH OF AUSTRALIA, IONOSPHERIC PREDICTION SERVICE OF THE COMMONWEALTH OBSERVATORY MAWSON, ANTARCTICA

AUSTRALIAN DEFENCE SCIENTIFIC SERVICE
WEAPONS RESEARCH ESTABLISHMENT, DEPARTMENT OF SUPPLY
WOOMERA, AUSTRALIA

AUSTRALIAN DEPARTMENT OF NATIONAL DEVELOPMENT, BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

PORT MORESBY, PAPUA

UNIVERSITY OF GRAZ
GRAZ, AUSTRIA

BELGIAN ROYAL METEOROLOGICAL INSTITUTE
DOURBES, BELGIUM

DEFENCE RESEARCH BOARD, CANADA
CHURCHILL, CANADA
OTTAWA, CANADA
RESOLUTE BAY, CANADA
ST. JOHNS, NEWFOUNDLAND
WINNIPEG, CANADA

RADIO WAVE RESEARCH LABORATORIES, DIRECTORATE GENERAL OF TELECOMMUNICATIONS, MINISTRY OF COMMUNICATIONS, TAIPEI, HSIAN, TAIWAN, REPUBLIC OF CHINA TAIPEI (TAIWAN), CHINA

CZECHOSLOVAK ACADEMY OF SCIENCES
PRUHONICE, CZECHOSLOVAKIA

DANISH NATIONAL COMMITTEE OF URSI GODHAVN, GREENLAND

GENERAL DIRECTION OF POSTS AND TELEGRAPHS, HELSINKI, FINLAND NURMIJARVI, FINLAND

THE FINNISH ACADEMY OF SCIENCES AND LETTERS SODANKYLA, FINLAND

HEINRICH HERTZ INSTITUTE, GERMAN ACADEMY OF SCIENCES, BERLIN, GERMANY

JULIUSRUH/RUGEN, GERMANY

NATIONAL INSTITUTE OF GEOPHYSICS, CITY UNIVERSITY, ROME, ITALY ROME, ITALY

MINISTRY OF POSTS AND TELECOMMUNICATIONS, RADIO RESEARCH LABORATORIES, TOKYO, JAPAN

AKITA, JAPAN KOKUBUNJI, TOKYO, JAPAN WAKKANAI, JAPAN YAMAGAWA, JAPAN

GENERAL DIRECTORATE OF TELECOMMUNICATIONS, MEXICO EL CERILLO, MEXICO

THE ROYAL NETHERLANDS METEOROLOGICAL INSTITUTE PARAMARIBO, SURINAM

CHRISTCHURCH GEOPHYSICAL OBSERVATORY, NEW ZEALAND DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

CAMPBELL I.

GODLEY HEAD (CHRISTCHURCH), N.Z.

RAROTONGA, COOK IS.

NORWEGIAN DEFENCE RESEARCH ESTABLISHMENT, KJELLER PER LILLESTROM, NORWAY TROMSO, NORWAY

RESEARCH INSTITUTE OF NATIONAL DEFENCE, STOCKHOLM, SWEDEN KIRUNA, SWEDEN LYCKSELE, SWEDEN UPPSALA, SWEDEN

ROYAL BOARD OF SWEDISH TELEGRAPHS, RADIO DEPARTMENT, STOCKHOLM, SWEDEN
LULEA, SWEDEN

POST, TELEPHONE AND TELEGRAPH ADMINISTRATION, BERNE, SWITZERLAND
SOTTENS, SWITZERLAND

SOUTH AFRICAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH
JOHANNESBURG, UNION OF SOUTH AFRICA

UNITED STATES ARMY SIGNAL CORPS., UNITED STATES OF AMERICA FT. MONMOUTH, NEW JERSEY GRAND BAHAMA I. OKINAWA I. WHITE SANDS, NEW MEXICO

NATIONAL BUREAU OF STANDARDS, UNITED STATES OF AMERICA (CENTRAL RADIO PROPAGATION LABORATORY)
HUANCAYO, PERU (INSTITUTO GEOFISICO DEL PERU)
MAUI, HAWAII
WASHINGTON, D.C.

ACADEMY OF SCIENCES OF THE U.S.S.R. SOVIET GEOPHYSICAL COMMITTEE MOSCOW, U.S.S.R.



+

When a "Heas than" sign occurs on the graph of the E-layer frequency and a qualifying E is not found in the table, the corresponding descriptive E (which at times means "less than") was not printed in the table. I have

TABLES OF IONOSPHERIC DATA

136.06

TIME

20 80 80

~

15 24 36

260 57

27 900

26 26 76 76

9 8 9 4 4 7 4 4 8 9

81 527

22 25

0 2 2 3 3 5

 275 260 290 262

312 28 347

370 26 26 340

HOUR	tb F2	h' F2	ъ -	M(3000) F2	foFi	fo E	ا اع.	fo E s
	SE SE	CNT	CONTRACT	SPSS	MED	MED	MED	Q MED
8	32 4 1 4 2 3 2 3 2 4 3 4 4 5 4 5 4 5 4 5 4 5 4 5 6 6 6 6 6 6 6		279 294 270	300 300 310 290				35
ō	96.48		£ 278 290 250	310 318 300				32
8	24 2 2 2 2		260 28 278 250	310 320 300				36
8	34 34 36 36 36		288 280 250	310 20 322 300				4 4
8	233		268 289 289 255	310				32
8	32 32 23		270 30 290 245	318 318 325 310				30
96	40 28 41 36	310	240	335 27 345 310		160	120	52
10	\$ 20 4 \$ 20 4 \$ 20 4	250 333	230 25 252 252 210 1	325 25 338 310	365	228 22	29	35
90	6 2 2 3	300 350 27	22 22 230 230 2	325 345 345 290 2	400 4	270 2 270 2	28	0 7
8	0 t 0 8 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	340	200 J 22 225 J 195 J	312 22 330 350 350	450	290 3	27	38
0	52 24 61 48	380 26 450 310	190 1 22 200 2 183 1	290 2	19 61	300 3	27 1	400
=	4 5 5 5 5	279 279 350 350 3	20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	430 4	300 3	102 1	25
12	0748	25 25 25 332 332	214 2 20 2 235 2 200 1	282 22 22 22 22 22 22 22 22 22 22 22 22	21 4	0 0 320 3.	26	14
5	26.65	27 3 27 3 39 3 3	200 20 19 220 22 190 18	295 29 24 24 300 3	18 4	325 19	105 10	44
4	115	345 33 17 33 370 38	220 24 220 24 185 21	295 30 15 1 310 30 290 28	430 43	330 32	22 2	51
61	199	238 329 320 320 33	220 22 17 240 22 210 210	300 30 19 2 305 31	430 40	322 30	26 2	4 1
9	58815	325 30 22 32 356 31	£ 220 23 13 2 220 22 210 210	205 31 20 3 315 31	11 1	300 25	24 2	6.4
12	573	24 24 319 319 295 295	230 2	210 3 210 3 310 3	390	255 19 18	110 1 23	53
1 8	22 25 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	280 280 300 270	238 2 18 2 252 2 227 2	320 3 24 328 3 310 3		195	1111	6.1
9 20	92238	29	240 23	225 32 21 33 330 34			2	040
0 21	0 222 1 222 1 50 58		230 240 28 25 240 265 220 228	322 305 18 15 340 330				90 3
22	0 51 18 18 54 49 49		E 240 5 240 5 248 5 285 8 248	5 308 5 16 0 315 0 298				37 4
23	45 40 17 20 49 45 40 36		£ 270 270 5 290 8 258	8 305 6 20 5 312 8 298				43 32
	0000		0000	0.000				
	₩ F2	F. F2	ie Če	M(3000)F2	6 F	fo E	ы -́с	fo Ea
HOUR				0)F2				
H	2533	SE SE	CEST	2533	MED	MED	CNT	O L
8	100 T		310 3 19 3	290 3				1.7
ō	43 0 50 36		300 30 20 30 320 3	310 00				4.5
8	0 00 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		300 24 22 314 314 34	300 30 300 30 310 3				6.4
03	0 77 100 100 100 100 100 100 100 100 100 1		269 269 269 260 260 260 2	302 303				54
8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		260 26 23 303 303 245 255	300				4.1
0.50	40 3		269 250 19 26 300 270 250 239	3 22 3 22 3 860 3 15				0,4
70 96	39 55 22 28 41 58 37 50	2 250 290 290 250	0 230 6 255 0 244 9 220	2 27 2 27 0 360 5 325				36
	0000	0000	0.0.40	0000	m		~	3.0

1N 27

TO 25.0 MC IN 27 SECONDS.

SWEEP 1.0 MC

TABLE

150.0W

TIME

ລ 

100 3 2 4

31 31 58

110 98

109 91

92 31 92 89

31 94 89

31 31 75

37 25 37

CAT CAL

156 . 5W1

(20.8N, 

31 58 48

\$ 30 30

34 7 38

MAUI. HAWAII

HOUR foF2

28 24 3 2 4 3

E 111 12 

18

9.0

325 25 340 340

280 24 295

278 250 2590 2555

295 25 300 300 278

290 23 300 275

290 25 272

312 26 320 280

340 340

296 305 260 260

20 300 235

236 246 2246

219 238 200

227 111 328

E 214 18 202

220 250 230 210

250 250 250 250 250

222 24 232 232 213

E 225 225 225 225 225

13 226 226 210

225 229 220

225 205

217 217 189

200 19

21 21 207 178

21 209 186

24 26 1 94 1 91

202 23 209 209 193

28 256 226

26 281 281 243

28 271 228

31 283 246

270 30 288 261

CNT

264 30 280 256

383 350

30 535 381

22 468 318

338 402 402 301

16 324 271

CONTE

h' F2

335 320

290 290 290 280

31 285 275

270 275 275 265

295 27 315 270

MED CNT

10FI 10E

30 275 240

1N 27  $\overset{\vee}{\mathbb{H}}$ W.

0 7

6.7

MED

to Ea

3.1 

¥

0,25

CNT MED

to Es

Control   Cont
A
Column
Control   Cont
A
A
Care
Course
A
A
A
A
A
A
A
A
A   A   A   A   A   A   A   A   A   A
Table
A
1
The color of the
No. 2016   19   19   19   19   19   19   19
14   15   15   15   15   15   15   15
No. 2016   Control   Con
N   N   N   N   N   N   N   N   N   N
Column
Column
Column
10   10   10   10   10   10   10   10
1
The column   Column
12   12   13   13   14   15   15   15   15   15   15   15
10   10   10   10   10   10   10   10
10   10   10   10   10   10   11   12   13   14   15   15   15   15   15   15   15
10   10   10   10   10   10   10   11   12   13   14   15   16   17   16   17   16   17   16   17   16   17   16   17   16   17   17
07 08 09 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
10   10   10   11   12   13   14   15   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   16   17   17
TABLE
1
1   12   13   14   15   15   16   17   16   19   10   10   15   15   15   15   15   15
12
13    14    15    16    15    16    19    20    21
1
16
1
10   10   20   21   20   21   21   21
10
20 21 22 25 25 25 25 25 25 25 25 25 25 25 25
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

ı	1	
	-	
	ĭ	
	*	

			LYCKS	LYCKSELE, SWEDEN	MEDEN			-	164 s 7N s		18,86)																20	RMION	NURMIJARVI. FINLAND	INTH	0		191	160.5Ns	24.653	.5									F	TIME 3	30.0E
	HOUR				11	1		1	H	8	0	=	12	10				12	Đ.	61	50	21	22	23		HOUR	8				-		07	8	8	오	=				$\vdash$			$\vdash$	-2	a	2
STOCK   STOC	to F.2	ONT		,195																		1511	5145	41 6 4 m	fo F2		C C C C C C C C C C C C C C C C C C C			-	-				2000	3 3 7	3 - 5 7										
Company   Comp	h'F2	CNT																							.e.		91.83																				
The content of the	Tr.	CONTRACTOR																			2125	9 95	\$1.5	,e) 1 a 1]	L E		-							-		7.13					-			-	57 57	300	325 8 365 295
The content	M(3000) F2	CNT																						£ 4 6;	M(30		C S NE			3.1					34.0	1700	36.3						0.4.1.0				
The content of the	10 F .	MED																							10 5		NT NT																				
1	fo E	MED							- '				-												To E	-	ED NT									2 -					0.						
The color of the	-E	MED							1.				: '	: '											.с П	-	NT NT																				
County   C	fo Es	MED	- 67	3 5																		1.5	7.5	5 0 1 1 0 0	fo Es									<u> </u>	4 :	24	0, 4	2.3							- 0 - 0	0.1	23
## A C A C A C A C A C A C A C A C A C A			42990	LA: SI	4F D EN	-			9.8N.		1A8												1	1.5e.t			, ž	4.743	1818L		-			2: 2	v.	4 5	,			-	-	i					
### 1	HOUR					-+			8	8	0	=	~	Ю	4	0	9	17	0	9	2	53	22	53		HOUR	Ó				-			8	60	ó	=	~	m		-			20	-2	22	23
	foF2	MED CNT	20,4	1111										1								D 4 , .	**::·	9 4 1 4	10 F2						-				7 7 7	:1:5	11.	245:							2425	71,30	2882
No	23.4	MED CNT CONT																							-E		0 × 9 9				_			_				i									
0012 WED 0017 WED 001	L.	CNT											_												TE.																-	, (			5500	0 t	\$ 1. 3 B
0 MED CANT CANT CANT CANT CANT CANT CANT CANT	M(3000) F2												-										,		MCSC		15 S 4 E								1	,									1		
0 MC CMT CMT CMT CMT CMT CMT CMT CMT CMT	10 F	MED							- 1			1					- +								u 24		HED MT									ı											
0 M	10 €	CNT				1		:	:		1					1.1									fo E	20	N T N				-										1						
100 100 100 100 100 100 100 100 100 100	u E	MEO	1						+ 1			*.	1	1		4	- +								E E		N T O	,										,					1	,		,	
	to Es	MED	٠,,	12																	٠.	1.1.		;	fo E		0 F					,		•				, 1		, .					٠.		ť

																								-																										ź	4	
all total		90	í	8	0.0	8	8	40 9	90	. 8	9		-			4	6	9	1	1 4	ą	20	2	. 2		Ĺ	HOLIB	10	00 00	00 10		03	00	98		00 70	. 8	. 6	-		2 (3	4	ē.	9	12	9	6)	20	12		23	
10 F2	300 300 and	1,17			-				-			157.		1525					1 1 1						, , , , ,	th F2		CONT												7 .				-			511.	-		-		
h' F2	CNT																									P, F2		CNE												5.5.7.5		7										
u.	CNT		1 1 1 1		5111	,	* * * * * * * * * * * * * * * * * * *	9 h -	: :	: * * ;	: -	2, 2, 2	. 5.1		i i	, ,		11.1		45.5	. 1.		1.,	9 11	ð ,	L.	20	CNT				- +,			r	7 - 1		4 - 1 -	7 * 1 .		÷	5.33.5	3 1 5 1	* 1 .	į ,	,	4		-			
M(3000) F2	2 MED CNT UQ	3.33	100		31.4		275 C	355	. 7 ( )		9 7 0 2	\$ 1 g			÷ ;	* ·	1	. ' : !	: :	1.3.4	313	44		. 554		M(3000)F2		MED CONT CONT		1		* * * * *			÷	- ; · ;	3530	1 41 3		175:	1 5 5 7 2 7 6 7	:46.	; · · ·	<i>\$</i>	3193	7	7	2				
10 F I	CNT				- +								-													ф	30	MED								_																
to E	MED								1				-					4.1								10 E	20	MED																								
ب ع ُ	MED								. *			: **									-					.e	20	MEO													, 											
to € a	MED				-								. ,				1					٠,	٠.		7,	fo Es	20	MED CNT		2 .		2:								1.4	4 1	1.5		2 1	25	₹ 5	2.7	4, 1,	7 7	12	5 %	
HOUR		00	: 6	27. 20	2 80	04 05	. 90	, 60	. 8	,   8	•		,   2	2	1 6	4	6	9	(1	ē	6	20	2 12	~	23 23		HOUR	N 1 R	J.V.	0 0 0		80		8		07 08		2	. HW.	5 =	2 (3	ā	ē	9	1	91	6	92	~	, M+	15.06	9
			İ		+		1	1	+				+-								+							-				+				-				-				$\vdash$				+				1
10 F 2	CAND	7     4	. •			1			+			:		1		. // .	^ 11 ,		, , ,	C. 1.	2 ' 2 '	1 2 1	t , ,	FSF5	A 1	10 F 2		MED CONT CO	9		i	5	51,	1				5 1,		; ,	34.	3 . 7 .	, · ; ;	£ 1.;	1 7 7 .	2725	5553	3.5.	, , , ,	200	24.61	
h' F.2	CNT																									h F2		ON TO CO				-																				
h. F	CNT																									<u>u</u> -E	3 0	MED CNT UQ ::	2-1.	7 * 4 .	7	-	· · · ·	• .	, a * .		5953		1 - 5			3753		150.1	;	4725	2 = 2 x	7724	3.5	¥ 2 2 0	5125	
M(3000) F2	2 SMEO SNT SO TES SNT SNT SNT SNT SNT SNT SNT SNT SNT SN																									M(3000) F2		CNT COU									2 2 7				* 1.1	1131	1 - 1 -	, , ,	115	1 3 2	112	2,52	, 1 g	1, 28	2,000	
10 F I	MED																									fo F.		MED				_																				
to E	MED																									to E	3 0	MEO								_			*,			1.										
ъ. я	CNT								-												-		İ			ъ -е	¥ ∪	MED												,												
fo Es	MED	2.1	-, /	1		5.1	3	5.5	2.5		* *		1.1	2 %	, T.		70 Z	3 5	- :	0 I	* °	pr	1.	* "	3 2 2	fo Ea		MED	12	3 -		- 1	* 1	7.	ž -		3 *						10	, 1 , -	V 2	35.	2 4	15	3 -	30	50	
		SWEED	0	. 24		2	18 56.	-2 JND 5.															NOVEM	NOVEMBER, 1964	1,464			\$		2	,			,	,*														NOV6	¥86 ×	NOVEMBEH: 1962	~

			SODANKYLA, FINLAND	LA, F	INLAND				167	167.4Ns	26.6E)	5E)									1 1 Mg.	36				JU. A.	A SWE JET	200					165.6Ns		22.1E)									- 1	ž.	15.0E
The content of the	HOUR		Н			-		8	07	90	8	0	=	-			ĺ	+		+				HOUR		8	10	8	-	8	00	8	10	0.8	8		2				+		-		2	- 1
## 1	16 F.2	CNT	.0 *					2007	1785	27.22	1 - 7 7	1 1 1 1 1	0 1 4 7					-					₽	F2	CNT		٠.	0 1	67,	::	3 %	* *	0.0	) D	52 25										297	33 25
Column	F. F.2	CNT																					`£	F2	SW TO CONT																					
	<u>т</u>	CNT					1	f	p														'e	LL.																						9 14
## 1	M(3000) F2	CNT							, * · · · · · · · · · · · · · · · · · ·				2 15 /										ž	30001F2							2 "													30		
1	fo F I	MED																					9	ii.	MED																					
1	10 €	MED								1				· 1									0	LLI.	MED															2.4						
Column   C	p. E	MED								_ : '	41												°£	ш	CNT												-		. 2							
The control of the	fo E a	CEC				_			3.73	:.	1, 1												9	13	MED	30		31			x *		_	, T	- 1	^					,		-			23 20
Section   Sect	HOUR		L FCKSEL.	E+ 5 WE	OS OS	8	0.0	90	. 0			, A G			E			_		-	71ME			HOUR		JPP SAL		WEDEN 02		8	8	8	.53.	B1/c.	\$4°	±, ±, a,	_	2	2		ō		-		ž	E 15.0E
						+-	1			3	3			-				+		+									-								+				-		+			
24	10.52	SE CO				-			10.00				1										40	F2	CONTRACTOR	*, *,		. : : : :	1:5		4,1,1	4,1,4	111	5 ) ; *	· . · ,						-					h d D /r
24	h' F2	CNED CONT.																					-z	F2	ONT CONT CONT CONT CONT CONT CONT CONT C																					
MODODLS MED  OTHER STATE OF THE	r.	MEO CNT UQ					\		, 3														Ē	L	-				-								-									v v
THE CANT OF THE CA	M(3000) F2	S S S S							, , ,				:::/					- +					Σ	3000)F2	MED CN7 CO				-	y , , , e				1												
1	19 P	MED	1																	_ +			٤	-	MED								-					, 1					-			
1	₹o E	MFD							. 1				'.				*.						2	u u	CNT																-					
3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	E E	MED CN7						1.		-:			1	_		1	:	+	£		. 1		Ε	List (	MED							\$	; - [		1	: 1	:				. 1					
	es es	CNT							Y 1														- 0	E .	O J NO			٠, ٠	·	7.			~ ,													6 1

0

TABLE 29

30.	23	m m h 12		22	290				2,	16.
IME 135.00	22	701.		7.7	295 29				2 ,	ALVEMBER. 1964
ž.	21 2	2020		٠ ١ ١	29 29				* · · · · · · · · · · · · · · · · · · ·	DW 4.
	20	2247		67	2.5					Z.
	61	37,02			11				. 5	
	89	5 7, 8 7			3.2					
	23	5551			1 1				3.0	
	9	<i>: .</i> ·		; 1	. 7				, D	
	2	X ' , , ,		-, *	1.		: 1		- :	
	4 :	171	3 3	5	7 A		4,		4.5	
	0	, t.t.	ş *.		\$ B		E 1		2.1	
	~	A 4 7 8	3 '	- 1.	\$ *	ļ'.	Ę1.		2 f)	
	-	£ 7 7 T	a, *.	***	3 4 5 B	7	7.		- 1	
	9	T , T .	. 1	, x	1 2	,	÷		. 5	
	8	÷ + †	7 .	: "		5 1	4.4		- ",	
***	8		r '	***	- *	<i>i</i> ,	· · ·		41	
7	07	1 - 27		-	\$ 4				5.0	
	8	1 2 h			71					2 2
	002			, e	, .					÷
	8	1 1 1 1			3				- "	
100	2 03	11,:1		. *	: >				A	×
A 18 55	8	, D, , , ,	1							7
1 2 24 4	00	15:1 15:1		*	**				· .	
2	0	MED	C S S S S S S S S S S S S S S S S S S S	S S S S S S S S S S S S S S S S S S S	MED CNT	MED	MED	MED	CNT	*
	HOUR	3 0	30	30.		20	20	30	3 0	
	9	fo F2	h, F2	L.	M(3000)F2	to F.	fo E	ш 'с	to Es	
	ш				*		-			
30.0	2	2 (* *)							20	1962
4r 15.06	22 23	1 (* ± 5 (* ±							45 26	BER, 1962
TIME 15.06										NOVEMBER, 1962
	23	2 ( 12)							5.5	NOVEMBER: 1962
	2. 22	2 (1 2) 2 - 1 2							5.5	NOVEMBER: 1962
	20 2. 22	2 (* 2) 2 ( ) . 2 ( ) .							5.5	NOVEMBER: 1962
	(9 20 2. 22	2 ; 1 ; 1 2 : 1 ; 4 2 : 1 ; 4							6, 4, 1, 4,	NOVEMBER: 1962
	18 (9 20 2. 22	2 (1 ) 2 (2 ) 2							4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4	NOVEMBER, 1962
	17 18 (9 20 2. 22	2 (							4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4	NOVEMBER, 1962
	46 17 18 19 20 2. 22	2 (1 ) 2 (2 ) 2					7		\$ 1, 1, 4, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	
	15 16 17 18 19 20 2. 22	2 (1 2) 2 (1 2) 3 (1 2) 4 (1 2) 5 (1 2							\$ 2 1	
	14 15 16 17 18 19 20 2. 22	2 (1 ) 2 (1 ) 2 (1 ) 3 (1 ) 2 (1 ) 3 (1 ) 4 (1 ) 5 (1 ) 7 (1 ) 7 (1 )								
	13 14 15 16 17 18 19 20 2. 22	2 (1 ) 2 (1 ) 2 (1 ) 3 (1 ) 2 (1 ) 3 (1 ) 4 (1 ) 5 (1 ) 7 (1 ) 7 (1 )								
TIME	.2 13 14 15 16 17 18 19 20 2. 22						7			
15.5F) TIME	1 ,2 13 14 15 16 17 18 19 20 2. 22	2 (12) 2 (12) 2 (13) 2 (13) 2 (13) 3 (13) 4 (13) 5 (13) 5 (13) 5 (13) 6								
15.5F) TIME	0.9 0.9 0 1 ,2 13 14 15 16 17 18 (9 20 2, 22	5 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10							6 20 20 20 20 20 20 20 20 20 20 20 20 20	
TIME	07 08 09 0 1 ,2 13 14 15 16 17 18 19 20 2, 22	2 (2 ) 2								
15.5F) TIME	06 07 08 09 0 1 .2 13 14 15 16 17 18 19 20 2. 22	2 (2 ) 2								
15.5F) TIME	05 06 07 08 09 0 1 12 13 14 15 16 17 18 19 20 21 22									
15.5F) TIME	04 05 06 07 08 09 0 1 2 13 14 15 16 17 18 19 20 2: 22	2 (12) 2 (12) 2 (13) 2 (14) 2 (15) 2								
(47*1M* 15*5E) TIME	03 04 05 06 07 08 09 0 1 ,2 13 14 15 16 17 18 19 20 2, 22	2 (2 ) 2								
'nia (47*)N* 15*4E) TIME	02 03 04 05 06 07 08 09 0 1 ,2 13 14 15 16 17 18 19 20 2 22	2 (17 ) 2 (17 ) 2 (17 ) 2 (17 ) 2 (17 ) 3 (17 ) 4 (17								
'nia (47*)N* 15*4E) TIME	01 02 03 04 05 06 07 08 09 0 1 12 13 14 15 16 17 18 19 20 2 22									
(47*1M* 15*5E) TIME	02 03 04 05 06 07 08 09 0 1 ,2 13 14 15 16 17 18 19 20 2 22		0 O	0 C C C C C C C C C C C C C C C C C C C	ت د د د د د د د د د د د د د د د د د د د	O. J.	11	0.0		
'nia (47*)N* 15*4E) TIME	00 01 02 03 04 05 06 07 08 09 0 1 ,2 15 14 15 16 17 18 19 70 2, 22		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	3 to 50 to 5	72 WED	O MT	C LWO	L C C M C		
'nia (47*)N* 15*4E) TIME	01 02 03 04 05 06 07 08 09 0 1 12 13 14 15 16 17 18 19 20 2 22		7 F Z WED COT COT COT COT COT COT COT COT COT COT	0. F	MI3000 F2 MED CMT CQT	To F. MED CANT	UND 30	h'E MEO		

91 91

141.8N. 12.5E)

8

60 8

00 01 02

32 34

O E G G

9 k 3 9

M(3000) F2

CNT CNT CNT

F 0

To E ш -с

CONT

TIME	21 22	152.		1120	1116				
15.0E	23	71,3		(,	3.154				
	HOUR	fo F 2	E E	'E	M(3000) F2	10 F.I.	10 E	э э	fo Es
		CNT	CNT	CNT	CNT	MED	CNT	MED	MED
A P	8	35,22		1,3	· '				- 7
ARITA, JAPAN	ō	29,52			, *				E,
AP Are	05	100			5,				
	8	\$ 12.5		\$ -	;				
	8	\$7,72			1.5				
	8	25:5		*,					
	8	2512		* *	7				
3.0	0.5	2011		* *			4.1		
30.74. 140.1r	8	24	. :	+ 5	1		1, 1		
140.1	60	, , ; , °	1.	15	* *		.:		2.5
-	ó	X 5 : 1	7 -	\$ <sup>4</sup>	7 1		4, 1		
	=	2 I		4.7	7 -	4			*
	-	2 . 1	, *	57	4 .	1, 1	= 1		4
	5	£ 1, 1, 1		\$ 5	f *				3
	4	r r	7 2	* *	ş 5	: 1	I.		
	6	2 57	3	5 5	ć z		4 ×		5
	9	; f, f		= =	\$ x		4		61
	r_	5001		- 1	5.				0.1
	9	27, 72		62	2.7				2 .
	6	55,3			ž. 2				3 0
	02	40000		54	24		Ì		22
je.	~	11.15		22.	35.5				0.3
7,Mt 135.0E	22	25,25		3,5	582				3.0
5	2	5555		305	26				- L

WITH ... TO 2040 MC IN 20 SECONDS4

SWEEP 1.4 MC TO 15.0 MC IN 5 MINUTES, AUTOMATIC.

MED

fo Es

NOVEMBER, 1962

4.4
Topic approximation
. ***
175, 74, 17, 17, 17

TIME 435, JL

5 22 83

20.20

= 5 / 4

0 12 2

305

0 1 450 23

, 5

x >

7.0 D 4,

× 0		CNIC	CSSC	CNC	CNT	MED	CNT	MFD	MED
25	8	35,		ž -:	2 1				2.5
KORUBUNJI, T.E JAKAN	ō	2.33		27					^ •
± +	8	3 2 2 2		6.5	, ·				
. 34	0.3	7,57		15				-	
2 4	98	2,23		.,5	, t				11
	8			ε .					1.7
	98	5.,2							
1,4	07 08	7.11		3.1	\$ .				
1.15.74	8	2227		3.5 3.5	£	2	i,		
	0	257 1	,	93 24	1				
ı	-	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1.5	1.	4			3.1
:	2	27.5	, .				.i		
	5	₹ , ₹ E		1 1	94 94				
	4	:5:5		7	1 .				1 :
	5	~ 5,5 1	5.	7, 1	7				:
	9	3117	7	; '	j .		:		- 3 t
	-	. 17.5		1.5	y ',				
	9	17.1		y	\$ 1				
	6	ž.,,,		15 F	11				2.0
	20	4355		1,	<u> </u>				
	12	1.15		-					I .
) 1	22	2323			1.				7.3
:	23	273.		. ?					-
						,			
	HOUR	to F2	h' F2	ш `æ	M(30001F2	fo F1	lo E	h E	fo Ee
		CNT	CNTC	MED CNT UQ	2 MED CNT USD	MED	MED	CNT	CNT
4	8	75.5		1.7	i i				2.5
See the contract	ō	. ;		-					r, 1
12	8	4.4.4		- 1					f. =
	0.3	27.7		Ę.,	. ;				7.5
	8	ĮĘA.			. ^				. 0
	0.5	1.7.		į:	. *				
	8	3		3.5					
;	20	1.59		1 "		-			12.1
H	90	2.23		\$			- 1		~
	8	4.11				7			1.1
2016	0	D * 1		2.4		4 -			3.5
3.6	H	5-11		40	3.	, T		- +	3.
	12 13	2 2 2 2		150	**			1	:.
	3 (4	D 1			3.	ž ,		1	
	6	4, 19	: 1	97		, E			
	9	£ 1, 22		3 1	3 '	1	7.		
	~	217.2	į, t	1.*	4.4				4.5
	9	0.223		§ *	91.7		İ		2 4

	4 15 16	# 2 % P			- / ( 			-	
	1 12 3	7 · ·	4)	; · · ·	.t				
	0 60 80	, 1 1	٠.						
*	05 06 07	10 m. s.* 10 m. s.*					~ -		) ) )
. d & .	02 03 04	*			, ,		1		, , , , , , , , , , , , , , , , , , ,
TROM50+ * + * A.	,00 oc	O NEO	25 S S S S S S S S S S S S S S S S S S S	O WED	22 ONT CONT	MED	MED	MEO	MED
	HOUR	10 F.2	-4 -4 -7 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4 -4	u.	M(3000)F2	196	10 €	n.	to Es

16 F 2 CMT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	01 08 14 15 14 15 14 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	80 2 2 2			27 08	8	0	=	~	5	4	e	5 2	E 2		-	+	2	2 3 7 7		HOUR	8	ō	00	0.3	8	8	8		1 1	8 .	0 5	2 7 2	in (1.0)	ā ~ ~ ~	e	ā 5 7	E 9,	37	6 E	2 2	2 2 2	22 22 22
CONT CONT CONT CONT CONT CONT CONT CONT	4.	+			+			-					- F	3 2		+									Ì				-	1	1					30	-	, , ,	3.7	-			
				1352	10,10	3 , .	1.1.1	, , , ,	20.3	171.4	1 . 7 . 1	'r	. 13	1.13	D 1 5	2 , ,	en Di		ī	to F2	MED CNT UO	-	,	3 4	3,-	5.1	55	2, 4,	4.	4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			-			:	-						- 1
																				.e	CNT	01.22									*,	0.0	0 1		0, 1								
H'F CMT CMT CMT	2 4 ° 4	2 mg 2 2 mg 2 2 mg 2	1 1/4	111	4,1	50.5	, , ,	000	541;	, X 1, 1	** *** *** ***	\$1	. # ;	, 65,	7.75	5.05			9 4	u. 'Æ	MED CNT	5,62	æ **	270	250	83	w 11	69,	7 2 2	902	200	0, 30	100	3.1	2.4	3.5	0.4	1,000	2.2	135 24	15 2	255 26	260 260
M(3000) F2 MED 29 CNT U0			3133 31	n taib ar a a	245.7	947	1725	34.23	91.77	11.0	4127	1	**	11 17	7 2 3	**	% \$% . *\\$	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A 1 + 5	M(3000)F2	JOJF2 MED CNT CNT UQ	05.00	0		15.4	2"		7 . 2 .	c 41	3.3	38.0	46 93	36.0	\$	360	360	. 6	2.0	6.00	360 3	330 33	320 35	350 320
fo FI MED CNT							0	′.	. '											10 F.	MED									*	, ,	16: 17	2		,								
10 E MED CNT			*	( )	~ p.			2	31		2.	. 7		6.7	2					10 E	MED								2.4	0	3. 4.	9 2 mg	\$ -1 > 0	1, 5	7,	3 2	217	010					
h'E MEO			** '	7 4	: 1			: "		: 1	: *		21		1					.e .e	MED	6.							4		1		- 1	. ~	3,	2) 14 7 14	5 1	110					
fo En MED 34	7.00	1, 4, 1, 6,	15	٠	7.2	::	\$ 7.	5 5	3.5	, ,	0 ~	2.0	2.2	3.5	13	3.7	4.60	27	23 21	, e	CNT	, 7 9	20	- 25	2,2	2,1	30	7.0	2.0	30	17	2.7	12		. 19	100	20	13 11 11 11 11 11 11 11 11 11 11 11 11 1	£ 1 .	77.91	1,7	235	34 24
	VI o FIN			[	160.5Ns	24.6E)	196					,		,		-		F	0	L		Jef		ŝ		1	1	8	- i -		9		- 1		- 1		-		9	-	- 1	Ē	£ 15.0E
HOUR	01 02 03	80	90 20		-			=	2	5	₫.	2	9	Ŀ		-		21 2	22 23		MOUR	_		20	8 .	8 .	8 .	8	-				-						ē	-			25
FoF2 CMT.				2242	T T T	¥ *, \$ \$	757.1	54.25	1177	21:1	\$ 823	£71.	\$ 2.27	1 2 2 2	\$ . 4 C	9000	3.7			10 F 2	CNT	2: 7.	C 4 C 4	4 2 4 4	. = 1	7. 7. 7. 7.	D 0 / 1	2123	1.232	7441	* * * * *	50 00 00 00 00 00 00 00 00 00 00 00 00 0	2000	41.5	9 2 3 6 1	26.52	i and	17.05	5 7 7 G 3	32	25 34 23	22 52 53 52 53	2300
h' F2 MED.																				h. F.2	MED CNT UQ	05.00								4	7.00	2500 25	8188	1.75	275%	€.1	ij.,				1		
h'F MED 340	335 31 20 385 35 310 3.6	# 1x1			54.1	: - ·	1475	; 4 - ()	:4:	: : : '		144.	17.11	97.34	5149	5-53	9.00		24 AV	,t	CNT	#19:	33.7	2125	63-3	\$ 1.5.	1730	5424	11.00	51;	111		* * * * * * * * * * * * * * * * * * * *	-190	2.53	211	51.00	\$ 64.00 10	3766	235 2	250 2 292 2 240 2	285 3	300 310 26 260 260 290
M(3000) F2 WED CNT UQ				i z	(2 <sup>±</sup> 2 <sup>±</sup> 2	21 22	2742	21.52	9434	2435	1 21	0.43 1	22.5	14.33	3 - 3 2	51 £1	<del>1</del> ·			M(3000) F2	SOIF2 MED CNT UQ LQ	27.29	4 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 = 2 0 C	1.87	8 18 8	8,450	2 2 4 2	12.2	1 11 11 11 11 11 11 11 11 11 11 11 11 1		32 32	33.	3483	380	1000	6,7,7,0	325 286 310 310	0.50 0.50 0.50 0.50	310 3	245 24 2 2 305 2 2 305 2	280 2	280 270 2c 17 295 280 270 260
fo FI MED CNT		- 1				27	1 1	4 1 F	- '	5	£ 4				İ					\$ F	CNT												38.		36.)								
MEO					10 mg	. 5	; *-	ř, *	j 2	3	A 3	: "	e *	7.1						\$ E	MED						: 1	; '	p 0	54		7	100	70	24.2	57	27-	4.	ž .				
MED														1	1					.e	MED	6					· 3.	£ *	4	g :	: 1		113	3	33		\$71	135	5 -				
fo E 0 MED CNT	26 00	5000	7.4	5 x	34	5.7	5%	14	Ψ, α	0 :	· .	5:	1. 1	: :	· · ·	-, 1	2 ×	7	Z.	to Es	MED	65	3.5	30	1, -	* °	# 7 #1 e	57	27	3.7	1.7	3 -	9.0	7 6	~ ~	3.0	· ·	23.8	577	3.5	24	28	26

15.0€ 1 127 27.30 TIME. 1 . . . . . 8 SNE CONTRACT CENTO SESS CNT CNT CNT CNT HOUR to Es 10 F. to E . 52 1 | Mc 140±1N1 07 08 8 00 01 02 03 CNT CSAR Cont CNT CNT CNT to F2 fo E 10 E

	HOUR	10 F.2	24.4	L.	M(3000) F2	10 F	to E	P. E	fo E a
00 0 03 03 06 05 06 07 06 09 0 1 12 13 4 15 16 17 16 18 20 2 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		MO ON OD OD OD OD OD OD OD OD OD OD OD OD OD	MEO CNT CO CNT	CN CN C	1	CNT	ON-	CNT	MED
03 03 04 05 06 07 08 79 0 1 12 13 4 15 16 17 18 19 20 2 22 23 HOURS OF 2 WED 10 10 10 10 10 10 10 10 10 10 10 10 10	00				1.				
00 04 05 05 05 07 06 07 0 1 12 13 4 15 16 17 16 18 20 2 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0				*				
000 000 000 000 000 000 000 000 000 00	20	2			* .				
05 06 07 08 09 0 1 2 13 4 15 16 17 18 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	60			:	1.				
00 07 08 79 0 1 12 13 4 15 16 17 18 18 20 2 22 23 04 19 10 0 0 0 1 10 10 10 10 10 10 10 10 10 1	8			1:					
00 00 00 00 00 00 00 00 00 00 00 00 00	90				. 1.				
000 1 1 2 13 4 15 16 17 16 18 20 2 22 22 23 24 25 24 25 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25	90	>							
10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20			- ,	, .	İ		- 1	
00 1 12 13 4 15 16 17 16 19 20 2 22 23 WD CO CO CO CO CO CO CO CO CO CO CO CO CO	90								
1 15 13 14 15 16 17 16 19 20 2 22 23 23 MED  10 10 10 10 10 10 10 10 10 10 10 10 10 1	8				, ,		1		
13 4 15 16 17 18 18 20 2 22 23 HOUNT COOL COOL COOL COOL COOL COOL COOL COO	0								
13 -4 15 16 17 18 12 0 2 22 22 23 MCD OOD 17 18 18 19 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	=	:		- +	1				
15 16 19 20 2 22 23 33 MCDOORFZ WED 10 10 10 10 10 10 10 10 10 10 10 10 10	~								
15 16 19 20 2 22 23 33 MCDOORFZ WED 10 10 10 10 10 10 10 10 10 10 10 10 10	ē								
16 17 18 19 20 2 22 23 MED  10 12 MED  10 12 MED  10 13 MED  10 13 MED  10 14 MED  10 15	á			٠					
17 16 19 20 2 22 23 HOURS  10 2 2 22 23 HOURS  10 2 2 22 24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5		1	-		İ			
10 00 00 00 00 00 00 00 00 00 00 00 00 0	9	,							
19 20 2 22 22 23 90 00 00 00 00 00 00 00 00 00 00 00 00	h-								
00 00 00 00 00 00 00 00 00 00 00 00 00	<u>е</u>						1		
10 F P P P P P P P P P P P P P P P P P P	6				.: 1	1			-
10 F 2 MED 00 00 00 00 00 00 00 00 00 00 00 00 00	20	15		. !					
10 P F P P P P P P P P P P P P P P P P P		٠,							
N F C C C C C C C C C C C C C C C C C C		,							
00	n	1 1	_		3				
00		2	'E	'n	M	\$	9 9	٤	9 9
80	HOUR	5	5		00001F2	-			.s
	1	9533	0 F 0 0	ON OUT	MED	MED	CNT	CNT	MED
5	8	. : )		15.	1/ ,1				
	ō	. 1		1.	7.000		i		

0

FINLAND	02 03 04	82 ° 2		10 10 10 10 10 10 10 10 10 10 10 10 10 1	7				5.
SODANKYLA, FINLAND	io 00	E 23.	C+ 9 9	34. 135 19. 10 3.0 1.0 3.0 1.0	,	O.F.	0.5		28
	HOUR	to F.2 MED CNT UQ LQ	h'F2 MED UND UG	h'F CNT	M(3000)F2 MED CNT UG	fo FI MED CNT	TO E MED CNT	h'E MEO	fo Ea MED
ω	_								
11M 15.0E	22 23	8, 2 7 A			Ç.,				31.
-	21	1140		n + 1 +					n 1 -e
	8	6444		4 4 5 5	133				<i>y z</i> →
	<u>o</u> .	4 x m m		5.33	2 2 2				7 4
	eō	\$ E 0 0		1 1	3947	,			٥,
	1,	1014		3265	. ( )	; *		1	1.3
	9	1570	0.10	9 12 4	12.8.		1.0		1
	ē	1971	2:53	323	1727	2.1	1	6	Ŷ.
	91	277	2.13	8113	: 137	: "	5.4		
	2	1 1 2	137	9 3 3 3	2157	+ 1	1,1	= '	7.
	12	7 J & D	D 1 2 4	5 15 1	2 1 3 1	3.5	Ţ		4
	=	2000	35.45	:2: /	11.	¥ *	1	1, 1	**
-	0	* 1 Y ?	31.33	533		D 2	ĵ.		,
:	8	72 13	1	: ' : :		: 1	5		7.
1 3 8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8	2511	7 2 1,	1,71,71	2.13	h .	7,	÷	•
4.	0	9 11 3 2	1711	5 15 1	250	4 7	2	3.1	
	90	5115	·, ·	1 2 3 4	7 = 7 .	2			
	0.5	* 4 6 6		s is t	2.72.				
	8	9, 1, 7, 7,		128	2 25	,			
	0.3	3 7 7 1		2 2	4 ° 2 %.	1			5 43
KIR NA. SWELEN	92	2000		2 - 8 -	* - *.	į		1	45
o NA.	0	1 4 2		1 2 1	2 2	ĺ			2 50
A [ 6	00		0-00	£ 2 2	8°58	Q.E.	0 F	0 F	T 42
	HOUR	10 F2 MED CNT UD	h' F2 MED CNT	MED CNT UD	M(3000) F2 MED CNT UQ	fo FI MED CNT	MED	MEO	fo Es MED

0 1 6 7

315 16 360 295

290

210

952.4

15.00

98.46

E 7 7 8

C v 2 0

4 4 9 E

9092

2 2 2 3

1000

TIME

TABLE 48

SEPTEMBER 1962

W.S. Lear " . L. " IN R MINUTES, S. T. MAY

SWEEP 0.8 MC TO 15.0 MC IN 3U SECOND .

42

MED CN1

fo Ea

-	
2	
6	
6	
481	
481	
r ABL	
7481	
7481	
7481	
7481	
7481	
7481	
7481	
7481	
7.481	

LULEA, Sair Eh	HOUR 00 01 02 03 04 05 06 07 08 09 0 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.00 C C C C C C C C C C C C C C C C C C	0 to 0 to 0 to 0 to 0 to 0 to 0 to 0 to	MI3000)F2 WED	LAND CAMI	MCO ONL	MOD TO THE TOTAL THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO T	, , , , , , , , , , , , , , , , , , ,	
	01 02 03 04 05 06 07 08 09 0 1	5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 .				:				
	02 03 04 05 06 07 08 09 0	5				:		: 1	, ,	
	03 04 05 06 07 08 09 0 1	\$ : \$ : \$ : \$ : \$ : \$ : \$ : \$ : \$ : \$ :				:				
	04 05 06 07 08 09 0 1	3 : 5 : 5 : 5 : 5 : 5 : 5 : 5 : 5 : 5 :				:				
*********	03 06 07 08 09 0 1	3 : 5 : 5 : 5 : 5 : 5 : 5 : 5 : 5 : 5 :		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		:				
	0 0 0 0 0 0 0			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		:			-	
4.54.54.64	0 66 90 10			1 · · · · · · · · · · · · · · · · · · ·		:				
*********	0 66 90	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		1 .	, .	:				
4,14	0	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		1 .	, .	:		: ;+ :   :		
	-			1.	,	:		: <u>:</u> :		
	-	,		1.	, .			- : ; <del>-</del>		
						- +				
		. 1	,							
	2									
	2									
	4			ε	;		.			
	0							-		
	9	57 .			11				2	
	-	,		,						
	9	T +							; .	
	9 2	- :		. ,						
	20 2	ž ·		3.					1	
11ME	21 2	; -								PTEMB
£	22 23			*. * } \						. PTEMBER. 1362
	n	> .	- 1	. ;			Ţ		12.	362
	Ц	to F2	h, F2	E	M(3	fo Fi	10 E	-E	fo Es	
	HOUR	2	5		M(3000)F2					
		CNT	2 S S S S	S S S S S S S S S S S S S S S S S S S	CONT	CNT	MED	MED	MEO	
-1	8	51.:			55 1.					0.00
	01	1,15			* ( .				1.1.	
	60 03	5.1.		:					,	
	8	1.5		*	· ·	-	1		_	
	02			. 5		•	2.			:
	8	2.1.					t .			
	07	2 . 2 .	ž .							McNi,TES.
* 19,4 *	90	1 11	2 -		2 1				, 	
	8	7.7 1	4. * *	11:0					*	
	0		v .	: " :		. •			2	
		1 14	. ,	7 :1		, :			,	
	21			17:11	2 1	111		:	7	
	13	1.11	274	7	,	,	- 5		- 1	
	ā	T	1 .		y 1 - 1	. 5			,	
	n		£	1 1		2			? .	
	9	211.5	2	1. 1:	a trad	1,1	, 5	11	2	
	13		, ,	7 .	1.2	9.1	11	41	3	
	6	7 - 4 5	£ .	,	1000		72 4	· ·	2	
	6)			3 .5	35.33		3.0	. 1	7.	
	50	9015		9-95	2122		2 1		1, 1	
		7.55		3 33	2.1.2.5	1			- ', '	

877

5100

100

TABLE

MINNIPE .. CANADA

ONT US US

5.06	2	2 , 2 2		z (*	\$7.				
TIME 135.0E	25	1 1 1	ì	x 10	15				
1.1	ē	. 1 9						Ī	
		21.0							
	22		+	3.5			+		
	0	£ 1, 1							
	00	2 - 2		1			I		
	-	2 1	;			:			
	9	1131		3.7	. '.	1	5 .		
	0	. 5 1	5.	1.5	-			Ī	
	4	E 1	1						-,
	ū								
	2	: 1	,						
		. 7						-	
	7	1							
71.3	9						1		
1771	60					,			
146.44 161.77	8	: 1	:		1				
7.	0.2	. 5.1	1		11-				
	8			,		I			
	8	٠.,١							
	8								
	8			_		- •		t	-
PAA									
4	05			)					
4	0	. 111			,			1	
4	1 1								
WAKKANAI+ JAPAN	8	j:::.		ı					
WAKKA	00	MED CONT	MEO CNT CO	MED CNT UO	CNTC	MED	MED	MED CNT	MED
WAKKA	H	MED	MED CNT CNT	MED CNT UO		MED	MED	MED	MED
WAKKA	MOUR 00	MED				to F MED CNT		h'E MEG	fo Es MED ONT
WARRA	H		h'F2 ME0	h'F CNT CNT UO	M(3000)F2 MED CHT		to E MED CNT		
	MOUR	fo F2 MED CNT CNT COOLOGO							
***	H	MED							
***	MOUR	fo F2 MED CNT CNT COOLOGO							
	23 MOUR	fo F2 MED CNT CNT COOLOGO							
***	22 23 HOUR	fo F2 MED CNT CNT COOLOGO							
***	21 22 23 HOUR	16 F2 MED CNT							
***	20 21 22 23 HOUR	10F2 MED							
***	18 19 20 21 22 23 HOUR	10F2 MED							
***	19 20 21 22 23 HOUR	10F2 MED					3 0 0		
***	16 7 18 19 20 21 22 23 HOUR	0 00 00 00 00 00 00 00 00 00 00 00 00 0	h'F2		MISOOOIF2	10 F	10 E		
***	5 16 7 18 19 20 21 22 23 HOUR	000 COLUMN COLUM	N. E. S.	u. E	MISOSIF2	ξ. 	10 E	e i	
***	14 5 16 7 18 19 20 21 22 23 HOUR	16F2 MED	N. E. S.	is.	MISOSIF2	12 P. P. P. P. P. P. P. P. P. P. P. P. P.	19 E	e i	
***	13 14 5 16 7 18 19 20 21 22 23 HOUR	16 F 2	7.55		MD000lF2	£	3 00	3,'2	
***	14 5 16 7 18 19 20 21 22 23 HOUR	loff 2	7.55		MD000lF2	<u>1</u>	J 0	e i	
***	13 14 5 16 7 18 19 20 21 22 23 HOUR	16 F 2	7.55		MD000lF2	£	ي ي	3,'2	
11.ME	2 13 14 5 16 7 18 19 20 21 22 23 HOUR	loff 2	7,62		MIGOODF2	<u>1</u>	9 0	3)	
11.ME	2 13 14 5 16 7 18 19 20 21 22 23 HOUR	16.F2 WED	7.55		MIGOODF2	υ.	ي ي	3)	
11.ME	10 2 13 14 5 16 7 18 19 20 21 22 23 HOUR	16.F2 WED	7	1.	MI3000F2	υ.	3 0	3)	
***	38 39 10 2 13 14 5 16 7 18 19 20 21 22 23 HOUR	(6.F2 WED	7,65		MISOSOFIZ	12.2	3 0	. E	
11.ME	39 10 2 13 14 5 16 7 18 19 20 21 22 23 HOUR	(6 F 2 WED	7,65	ic.	MI3000F2	12.2	3 0	3)	

30 gg

3 8 3 3

9539

MED CNT CNT CNT CNT

Company   Comp
The content of the
Column
Column
The control of the
THE COLOR OF THE C
The control of the co
THE REPORT OF THE PROPERTY OF
THE THE THE PROPERTY OF THE PR
Control   Cont
THE CONTROL OF STATE
The control of the
Column   C
Company
Third
California   Cal
The control of the
Fig. 2, 1997   Section 1.5
The control of the
The control of the
The control of the
The control of the
The control of the
Care   Care
1911
Care   Care
The color of the
Table   Tabl
19 08 0 19 1 19 1 19 1 19 1 19 1 19 1 19
110
110
Table 34  19-25:  19-2
THE THE THE THE THE THE THE THE THE THE
THE THE THE THE THE THE THE THE THE THE
THE THE THE THE THE THE THE THE THE THE
THE THE THE THE THE THE THE THE THE THE
THE THE THE THE THE THE THE THE THE THE
THE THE THE THE THE THE THE THE THE THE
THE THE TABLE TO T
Time 1  Time 1
Time 1  Time 1
THE THE TOTAL CONTROL OF THE T
19
13 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
35. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

AUGUST, 1962

.web. .. MC TO 17.0 MC IN 16 SECONDS.

	160.7hs 19.0F1	
	2	

TROMSO, NORWAY	24.8					2	169.7%		19,061												TIME	15.0E	ш			SODAA	SODANK YLA,	FINC.	AND.				167	* 44 10 4	26.6	139											Ē	ME 30	30°0E
	1 1	8	Щ	0.4	98		7 08		0	=	12	$ \cdot $	13	4	6	9	4	81	19 20	0 21	22	2 23		HOUR		8	10	8	0.3	8	90	8	0.7	90	8	0	Ξ	12	5	4	ē	9	-1	92	61	30	12	и	22
# B . # #	A	£ .9:		2:30	2.,5	1292	0 1 0 7	77.7	3 7 7 7	7 47 7	T 17 C		7 5 - 0	1 D ( )	9177	2 2 2 2	5525	2 1 2 2 0 4 4 7 1	3 1 3 7 1 3 2 0 1 2 1 7 2	7 7 7	7 7 7 7			fo F2	CNT	1092	3597	6 1 2 7	1252	2721	44;.	3.532	\$ 17 5 E	1.77	9099	\$700	10.5	1833	32.61	1 - 1 1	2 - 0 1	1011	3 0 7 3	\$ 0.03 0.00 \ 0.00	2001	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	17778	38 117 35 35	39
						# 1 s 2	f :: 3	3 173	3 - 5 2	9.483	2493	5 f3 3		3 3 3	7 ° 5 °				11.1					h' F2	MED CNT UQ																								
		7			£	3.93	1151	* 11	: 1:1	: 11.	1111	: :::.		1 1 3 1 5 1 1 1	1151	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 146	444	1 D 1	* *		3		ļ. -	ON COL	87.5	\$ 7 5 5	2 4 7 1	177	1, 1, 1	5.22	2 6	1150	:1.,	:351	74.	1911	1912	7.7.	. * * * !	.:::	17 1	55.15	12.53	1001	0,50	2 2 T	0000	275 20 310 250
270	270	0		300	305 290	305	305	3000	300	310	310	0 300		305	300	310 31	00 -	310 31 14 3 31. 35.	310 31	310		c,		M(3000)F2	CONT	1111	37.4	. 13	, i	, * * ;	35/5	, 1, 1	\$4.3	1.27	:111	3745	\$ 1.54	2123	2721	F 127	.*:	1041	300	2,2,2	2000	31.0 5.2 5.00 5.00	300 20 345 474	236	290
						1	1			, .	, ,	, ,		,										10 F I	MED							₹ `	ş '.	,			1.	, 1,	, ,	, ,		5-	, x	e					
						,			,	,			,											to E	CNT						1.	1:	4.1	, `	114	, ; :		2.1	, :	1.		15	9.0	3 =	3.5	\$2.4	g I	9	
						,	1 1			*	:					: .	_		-					.e	MED						: 1	1.	1.1			-	1			1:	: `	: *.	2,00	***	15	F.4	1,1	Ε.,	
7.5										, ,				. *;		, ,		# 1.		7.5	7 7	0.0		fo Es	MED	\$ 7.	4.	./ 10	24.	٠, ٠,	2.	2.5	5.5	7 -	2.5	7.5	# 13	7 2			ź T	7 .	3 4	* *	3.5	2.5	5.5	5.5	1.5
A MALLERY & TABLE	4.3.	4					1	ź.	4	TABLE 5	6 6										ŧ.	e e				8	PPSALA.	SWEDEN	z				(59	159.8Ns	17.0	TABLE 6E)	TE 90	0									Ε	TIME	15.06
0, 02 03	-	8		04 0	90 \$0	20 9	90	8	ů.	=	2	(3		4:	0	9	1	91	6	20 21	22	2 23		HOUR		8	ŏ	0.5	8	8	8	8	10	8	60	2	=	12	=	á	E	9	F-	9	6	20	2	2	23
30 26		2 4 2 4		22 6 25	3323	38 24 2	4.2 20 20 20 4.3 4.3 4.3	3 48 0 21 7 51	1 2 2 2 2 3 2 4 3 2 5 2 2 3 3 4 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 23		225 225 200 200 200 200 200 200 200 200	1623	577	1000	14000	22 22 31 46	119	9 0 0 0	111 5 57 5 48 4	2 4 8 8 8 7	52 46 2 54		fo F 2	CNT	20 20 20 20	25 26 32 21	22 23	2002	2222	9000	0.00 4.00	30 6 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2001	48 31 51 45	531	0 4 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0	910	4 W U U U	9 1 6 9 1 1 9 9 1	5 2 2 3 3 4 5	931	931	93 10 10 10 10 10 10 10 10 10 10 10 10 10	97.0	9 0 0 0 4	41 29 30	24 20
							- +																	h, F2	CNT						28.5	375 8 315	975 16 300	350	365		t	-	7			_ ′							
208		0 1 - 0		2000 2000	268 220 280 230 240 210		210 210 210 210 210 210 210 210 210 210	7777	4 210 5 22 0 5 20 0	205 0	2222		8 199	200	\$ 000 \$ 177 \$ 000 \$ 177	21002	230 22 2 200 2	230 272 275 215 215	250 25	260 24	240 24	240 280 280 300 230 240		L	CNT	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	260	255	275 685 685 685	265	245	225	252	2022	210	205	205 26 215 215 200	2158	200	22.5	202	212	220 21 230 210	240 21 245 245 230	250 27 255 245	245 239 250 250	240 29 245 230	245	270
305 320 295 3 3 3 4 3.5 280		2 - 0		305 3	310 310 11 24 320 33 305 310		310 308 20 20 320 317 295 285	300 3 21 3 218 3 24 5 5 5 5	220	310 1 23 325 0 330	2325		322 322 300 200 200 200	3.20 3 2.92 3 2.92 2	310 3 24 317 3 288 2	310 3 25 330 3	320 3	320 3	326 31	315 32 11 320 32 310 31	320 31 320 310	315 305		M(3000) F2	MED CNT UQ	2302	98,770	8.430	500%	2,728	0.1.15	12 2 2 1 .	8,50	8798	289	3101	320	338	310 310 320 300	280	300	300	300	320	300	300	300 310 290	290 290 280 280	280 29 295 260 260
																								fe FI	MED							2 0 0	97	3.45		30	620	2,22	24.2	43.0	27	396	380	345	-				
							-				_						, 5, 1							10 E	MED	9-		47	37	32	200	211	10	252	25	2.6	262	227	3.00	60	27.5	257	230	2002	170	511	75		
	•									1	- +								+					p, اد	MED	17.2		129	50	£ 0	12	12		601	975	31		100			190	105	105	110	105	** °	:		
	32 28	20		23	2.7	2.5	4	27 3	32		37	2 22	7 7	5.9	3.7	3.1	62	2.9	9	6	m c	4.2 4.5		fo Es	MED	60		5.5		57	35	200	3 6		3.5	9 7 8	3 50	2 4 5	9.7	0.0	3 -	7.6	444	36	35	27	52	2.6	24

		THURCHI	THURCHILL. "ANADA	NAOA				7		- MC+96											Ĭ.	TIM: 5				2		2 1 . 48 . 14dr	2				٠		0 * 3											=		0.0
HOUR	GE .	ō 00	8	03	8	8	0 90	90 4	8	0	-	12	ç	ā	50	9	17	18	61	50	ī.	22	53	HOUR	JR	8	ō	8	03	8	90	8	07 0	00 00	01 6	-	12	5	4	0	9	17	9	6)	20	212	2	
fo F.2	03.4 03.0 0.0 0.0	5.20	23:5. 3	. 11 5	3570	\$ 1,12	5 · 1 1	3 - 2 3 - 2 3 - 3 7	3 ( 1 )	3 - 7 - 7	5 - 7 - 7	,	, ,	, 11;	1114	11.73	1 1 2	ž 2 T	* , ; ;	1 110	t 0 ; ;	7	D 4 7 7 7	fb F2	CNT	27,12		21.11	1 15	7 -	2, 1	2 4 1	1111	\$0,10	75 mg	5 f s 5 k g	11.1.				+ 41 +	: 1:5	2 1.2	2.52.5	2765	A = 1 +	9.52	10.1 m
n F2	CNT						<i>ž</i>	3	, `.	, .	,	3.2	<u> </u>	ţ ´*	23	3 -	<i>:</i> *·		,					F 7.2	8 P S G						1	1 44	1.49				- 11.	No.			7/3.5	1000						
u.	000	y :		T.	\$ 1	1					,		11				**			4.	a '		g T	L E	CONT	1156	547	teri.	1. 1			300			1		1.1	/			14.1	E	in,	4 - 27, 1	13.5	* * *	1	\$100
M(3000) F2	CNT CNT UQ	,	,		,		,	7	r -	1		, :		, %.		7'-	, ÷	5 .		<b>4.</b> 4	2			M(3000)F2	F2 MEO CNT UG	34.5	2 - F	7153	3 - 1 - 1	, t t,	1133	17.33	1 11 2	11(1) 11(1)	1111	1122	325.	**(1.5)	123	1481	1/53	3 3 7 3	1149	1 1 2 2	: : : : :	* * * * * * * * * * * * * * * * * * * *	33.0	80 74 6 0 7 7 7 0 7 7 7
fo F .	MED							5	;	, a,			i "			, ,		:						fo F.	MED						, ,	, F					7	<i>i</i>	1	35	2.4							Т
to E	MED								, .		, 1	- 1-			. ^-	20	2.7	, t	,					9 9	MED						1, 7,	, 7	- 1.	~ 5			, 1 1	3.3			7.1	54	3 -	5.0				
ء. ع.	MED																							.е Б	MED					4	1.	a. 24	1.0					2.4			1.4	D ,	447	Q ^				
fo € a	CNT																							to Es	MED	1.8	7 10	3 D	2.5	1.0	2.0	5.5	2.5	13	27	* 1		3.0	3.3	3 3 3 3	3,4	2.2	3.5	7, 6	5.6	3 1	( m	22
		PRCHONS	ψ. ·	ECHOSL	OVARIA	1	1	o  -		9	7A8LE 03	1			,	-	,			,	F	1	0.			- 3 - 3	1 PEC.	WINNIPEC, CANADA	,						5	- Lu					-	-	9	· ·	C.	TIME		40°0%
HOUR	8	00	- 02	0.3	8	02	06 07	8	8	0	=	2	m	ā	ē.	9	-	9	<u>6</u>	8	5	22	23	¥	HOUR	8	ō	05	8	8	8	8	20	80	2	=	2	in la	4	2	9		ED	2	50	0		
10.F.2	MED CNT UQ	# S	20 50	11.11	24	1 .	4 .	, . , .;	15	\$3 	7-3	<i>3</i> .1	9 1		A .	20	30	15	b.	5 "	4 M	3 4.	2.6	10 F 2	CNT	1264	0.753	7 T D	5 ,	17,000	4.500	2723	2.1.1.1	3 1 2 7 7	3 4 3	7 1 7		75.47	7.79	1030	1277	77.1.9	45.63	2472	7427	1855	m vn r. m	23.5
h, F2	CNT																							h, F2	CONT							er v.	3 1	1 1	7	2 · ·	7	2 .2	, ,		2.5	5.	64	i,a				
ie Te	CONT	200	0 1	6.2	0 =	1 -	* *	14		· .	ī. <sup>6</sup>	, q.	11		1.5	11	9*	:	ŷ.	3.	-	7	0.4	.e	CNT	7	10	ų i	2.7	,-2	2.1	. C	5.1	;;;		, i		31 t	C #	5000	ŏ*	50	6.	2.5	3.3	25	6 C	330
M(3000) F2	F2 WED UND UND UND UND UND UND UND UND UND UN							-						1										M(3000) F2	JF2 MED CNT UO	7			4	,			2.5				2.7		). 	g. 2	5	2 .	00 -	6.74				100
10 F (	MED																							آ آ	CNT								2 0	3.7	20	*	51		2 2 2	267	30	7 7	360					T
fo E	CNT																1							fo E	MEO								5.	2.					: 5	, ,	1.4	1,24	340	5.1				
ъ. Е	CNT																							-E	MED																							
fo Es	CNT	5 2 4	25 25	50	2.3	33.	88.7	40 4 8 5 7	E/2	5.5	15	E 2	3.0	25.	**	W 01	95	80	101	3.00	2.2	, F		to Es	MED																							
		SWEEP 1	SWEEP 1.0 Mr TO 18.0 MC.	10 18	O MC.																AUG	AUGUST.	1962			CWF Ch	1	37	1	3	8	* 30 EL WE *														AJGO	AJGUST+ 1962	296

i	-
	-

		€	JOHNS	NEWFO	NEWFOUNDLAND	9		1.6	147.04.	62.747	7 m 3											3.	40 °C4 34	**0		45	SOTTENS, SAIT, FALAND	5.0 28	I V. F. H	DAM.			140	140.044	0.0	â												15.06	
HOUR	95	8	ō	8	9	8	90	07	80	8	0	=	2	ž.	ā	0	9	Ŀ	œ.	6	20	51	22 23	٦	HOUR		8	5	8	03	98	8	20	98	8	2	=	21	ū	ā	0	9	91 2	61	20	21	и	23	
10 F2	CNT	2 2 E 2	2002	22 23 20 20 20	77 25 27 27 27 27 27 27 27 27 27 27 27 27 27	23 3 3 2 2 3 3 3	32 40	2 2 4 4	2002	7337	0 - 0 3	1379	1. 2.63	2213	7 7 7 7	1202	1273	2 400	87.40	0 1 6 0	1.538	J 1 2 0 0	2 1 5 W	26.35	fe F2	CNT	24 24	2.0	33	6.83	31 30	0 37	27	53	25	20	3.0	2 5 5	5.5	~ 0	28 2 2	28 2	52 67	85 7	20	9.5	51	24	
n' F2	MED CNT UQ	0 F 0 G					20.00	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	335	7 7 7 7	W	37.	35	500	53,	3.0	355	2,2,	· 8 :						h' F2	BF33						**	275	330	3.	100	33.5	330	335	365	34C 3	350 310	300	- ·					
ا <b>د</b> آھ	MED CNT UQ	280 T 12	275	~		245	9 28	213	97	2007	24	2,2	230	2007	55.2	5 8	200	74	\$1	2.	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 0 0 0	265 275	5.2	li. Te	S S S S S	265 26	280 2	2 062	295 29	290 280	240	230	220	213	2002	200	200	200	.3	2002	210 22*	535	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	250	23.5	240	17	
M(3000) F2	F2 MED CNT UQ	2 2	280	000	36	320 331	52 25	320	323	2.6	29	300	290	56	293	300	25	303	400 7 × 2	010	300	0.5	400	10 m d d	M(3000)F2	SESS	. 88. . 88.	295 2	9 47	85	306 300	320	335	3.25	325	325	312	315	320	2 2 2	315 3	310 31	335 325 27 25	315	320	320	325	315	
fo F I	LEC	01					.66	04.	957	9.0	35	2007	92	7	0.0	107	5.0	3.0	*						70 F.	MED							350	3 45	013	0.0	4.30	0.00	435	25.2	23 620	21 15	390 360	0.5					
\$ E	MED	0+					230	52.	285	0.8	320	323	3.50	320	2.7	245	11.	2							° €	MED							230	7 7 7	780	300	 	300	950	3.6	100	290 27	270 225	50.0					
ы "с	MED	Q.																							P, E	CNE						,	110	130	34	00'-	2.7	2.5	0.0	0 4	17	110 11	21 20	00					
fo E a	MED	0 +																							fo Es	CNT																							
		W AKK.	w AKKANA‡ ,	JAPAN				2	165+274	2	148.5	1.0	-									,	. Mt . 35.0t	40		c	OTT BANG.	· CANACA	4				200	145.44.	T 5 . 9W1	TABLÉ	40 40 hu.										¥ 	75.04	
HOUR	8	00	ō	95	03 04	4 05	90 9	0.7	8	8	0	Ξ	12	6	ä	50	9	17	60	ē	50	21 2	22 23		HOUR		00	10	05 0	03	8	8	40	8	60	ō.	=	2	5	4	5	9.	17 18	6) 8	20	12	22	23	
10F2	MEDO		5218	0 * 2 2	a	0000	1 0 0 0 3 1 0 0 0	5/49		1871	V 20 4 -	3 2 2	200	2 111	P. P. T.	570.	21.11	W 1 0 1	8, 9,	0 + 0 5	2021	\$0a.	1001	\$ 13 44 \$	to F2	CATE	× 5 = 5	5.551	3500		4444	5.55	\$ m + 2.	3 0 0 3	21/4	2 5 P 1	7 9	2276	A CONT	70,03	7 1 2 2	1275	2021	232:	0 - 0 1	3 4 4 1	\$257	0046	
h' F2	MED CNT UQ	0+00				. 3	188		25	31	2.	, T	£	\$20 \$20	ć ~	6.77	22	1,							h, F2	ON CONTRACT							2.4	5.00	35.	£ ~	<u> </u>		9		36.0	3.5	100 Date 1		-				
'E	CNT CNT UQ	5° €	96	2.0	4" 29	80 CE	95	27	25.	3 -	ĝ?	34	52	3.5	25	76	3.5	42	< :	÷ 1	÷ 5		8	œ,	u 'e	CNT	26	14	*	2 T	2. · g 4	8	· · · ·	2.5		ç ,	3.4	0.3	4,5	Q.E.	ia	£3	5.5 5.7	8	· ·	if Zi	£ 4	242	
M(3000) F 2	F2 MED CANT	5 : ⊕ ⊨ g q	2,5	5 2	\$ 7	2 <sup>3</sup>	2.	3.2	32.		# <sup>20</sup>	, T	40.0		= 7		4.7	124	÷ ".	4.	5.0	28	0	952	M(3000) F2	MED CNT UO						ç 1	- T	., T	; =	<u>, i</u>	2.14	2 -	. :	2.5	č ,	25	; ;			*			
10 F.1	MED	91				80	* 1	\$ 1.	, ,	* * * * * * * * * * * * * * * * * * *	e 15	· ,	; `,	·, ·,	,	33	2 1	4	-						l P	MED							. ~ .	; -	7	2	1	15	, , , , ,	Q.1.	1	, 2	\$ 14. \$ 14.						
fo E	CNT	0 -	1			•			· ·		, -	-	: . ]				·.								fo E	ONF												. ?		*.	5 1			1.	_				-
a,	CNT	Q.										1		1	1		1								P. E	MED				1				- +						į		1				1			
fo Es	MED		7 -	٦.		1, 4	2 5	š	1 "		1.7		17	:	25	\$ .	٠,	ţ :	7	. 7,		15		1 ~	fo Eq	MED																							
																								1																									

		ROMF TTALY	TALT					;	· · · · · · · · · · · · · · · · · · ·	1												Ε	TIME				Α1	AKITAs	JAPAA	2					***	. tog ? se [Goule]	2												11ME	TIME 135.0E	30
HOUR		8	00	0.3	8	8	8	03		1 1		$\vdash$			4	61	91	1.	9	61	50	~	22	23		HOUR	H	90	ō	8	03	8	90	8	10	90	8	0	-	2)	ē	14	0	91	21	61	19 20	12 0	Ø	23	
to F.2	OF SO	. :	1111	7; 1	* , ;	* .	, ,	2	1	; 1	,				11	, , , ,	, 1	1.77	: .	. 7 *	11.1	**, *	11.7	1	to F2		CONTO	1177	1.).	1.5	1.1	, , Y	, 5.5.7	1274		276	* D # *	1-11				1 17	1	10.1	: 20 4	1121	1111	5127		1 1 0 1	7
h F2	CNT												1 1	1 2		:4.	. 1.								л. F2		CONT						,	*.	31,	; ;	. D		3		, ,	1	. '	2 1							
9	CNE			1.1	• , ,		j 1	7.1	:=::	113		: 7.1				1.71			· · ·	· · ·		,	* *	1 +	L.	20	CONT	, ,	x	÷ ?	r.			5 1	¥	21	ĭ,	32					4,1	1	7	,	50	7 .	<u> </u>	8,7	
M(3000) F2	CNT			1 9	, ¥			* * 1 .				7.7:1					*		1					1, 2	M(3C	M(3000)F2 M	CONT			· ·								- 1	15			3.0			17	5 P	20	14	\$ C	285	0.4
1961	CNT				_			†		2		; ,				. `	. '								10 F.I		MED								:	1	:		,		1 1	*	- 1 	· · ·							
to E	MED				_		3 1				- 1	- ,													to €		MED						,				, .		*				3	, .	-;					}	1
P. E	CNT				_ +							:							; *						Б		CNT	1							1																
fo € s	MED	7			_			:					-		7		.*				2	.*	-	a'	to Es		CNT	1 2	5.5	2.7		. ;	1.1	2.3	3.2	<b>4</b> .	53		2	ţ.,	, .	* 5	3 4	2	* .	5 ,	15	. 31	1 31	31	
									3													<	57. 262	75					2			:		11.5.	. 98				-										Au UST, 1962	T. 19	20

TIME .35.36	
135.7Ns .3.s.	
* * BUNG . TORIO. JAPAN	
	П

	HOUR	to F.2	h F2	E.	M(3000) F2	(oF)	₽ E	æ,	to Es
		0 kg 9 9	CNT	CNY	S CNT	CNT	ONE	CNT	CNT
	8			. "-	2.			,	
* * BUNJ . TORTO. JAPAN	ō	7			· 5			Ì	7 .
, TOR	0.5	, , ,		* ,	. `				
.01	0.3	\$ , \$ - <sup>*</sup>		· *,	\$3				. 2
JAFAN	8	- ; *							٠.
	90	1041			. ,				÷.
	90	7 -							3 .
135	20	3 "		1.	1.1				7 -
. W.	8	1 2		7	÷		1.7		- ĭ.
135.745	8		-	1:	. *				,
	01		. •	7.					ĭ -,
				,					`.
	21	. 1							7
	E.	2 . "				v v		1	· ·
	14	1 - 2 1			* .	,			1 .
	5	2	`.	;			. 1		, .
	91		, :	, :	1	1			; '
	()	1973		15.	. *				11.
	18	4, , , , ,				1			
	61	11.1			, 1				
	20	11.27		1	, ···				: :
-	12	73331		0.1					3 7
TIME .35.36	22	7533			', *				
35.06	23	1 4 1		,					
	HOUR	to F2	h F2	lu E	M(3000)F2	19 F.I	٠ ا	h. E	fo Es
		MED CNT UO	MED CNT UQ	CNT	CNT	CNT	CNT	MED	MED
r A*** A	8	3 7 7 7			, 1				25
AMA	ō	1.131		. *	11				7 1
ANN AMA, JAPAN	05	· , -							
z	0.3	1111		r '	2.1				
	8	. 50			~				
	8	2 -		, *	,				5.
	98	, . 1;			; -				, ,
1	40	50.0	2	į^~	§ 7.	, ,	, T		
A14 No. 14427	8	I	7.	,		, `	, 1		1.
	60	. ,		, .		: :			1.0
	9				* *	. :			
	=	7 C T	3.5	, .	- 2	1			, ,
	~	ž ′ . ·		, '		1	. 1.		
	5	7311				, 1	1 1.		1.
	4.	7.1			٠,				1 3
	£	7 . ; *	1.5	1.1		; '			
	9	. 233	٠.	* *		1.			3
		P · T ·	1	· ·	ч	· ·			1 7
	9		, :						7
	6				: 1	-			, ,
	02	1127			. ÷				# 2 3 ^
111	12	. 234		3, 4	5.5				E.
5	1 ~	, -, ,							

	F2				
CNT	CNT	CMT	CNT	MED	MED
	2.5				15
h. P	3.5				$\varepsilon \leqslant$
• • •	: •				, °.
r	2.				
	* *				
· T	,			1	11
, ;	: -				2 4
;~	§ 7.		. "		5.7
		, `			1.7
, ,		::	: .		1.7
		, ;			
, .			,		, .
, '			. 1.		-
		, .	1 1		1.
	3				à .*
	. *	: '			, :
: 1					3
· ·	-	· ·			; ;
					7 1
	; :				, ,
	, ÷.				3 °
3	. 1				E "
	· :				- 3
30.	55				7.7

August. 1962

	1	9
$\overline{}$		i

ONE THE CONTROL OF TH	01 02 03 04 06 06 07 08 09 10 11 12	10 15 07 10 07 10 07		2/3 2/3 2/3 2/3 2/3 3/3 3/3 3/3 3/3 3/3		, .		. — -	
. Tel	04 08 06 07 06 09 10 11	1300 131 123 123 123 123 123 124 124		.: E Mil. - E. - Es - Es - Es					
. 244	09 08 07 08 09 10	1.100 1.100 1.100 1.000 1.000 1.000 1.000 1.000 1.000		14 E 17 E 17 E 17 E 17 E 17 E 17 E					
. 244	06 07 08 09 10			Maria Maria Maria Maria					\$ 5 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7
. 244	01 86 98	1.1**. 1.1* 1.1* 1.10.1 1.10.1		74 i 74 i 14 i 14 i			, , , , , , , , , , , , , , , , , , ,		
. 244	9	1.1 x		7:1 Ma			, , , , , , , , , , , , , , , , , , ,		\$ 5 \$ 5 \$ 5
1	01	3 4 2 4 7 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			\$1 \$4.7	, .			1.1
1	=	1101		1	51.5	, .	;		1.1
	H				1445 1445				1 5
	~	11.			7.194	, .			
							-		1 1
	5	1111				,			
	6.	****				11	7		1.5
	15	11.73		1.5	21.0	11			2.1
	(6 17	2575		1118	100.0	ç d	18, 2,		71 11
	9	7 1 7 7			200	# -1	3, 13 1 m		0.0
	6	1.75		1113	27.2	2	; =		3.0
	50	1.79		****	21.		20 0		/r 1
þe	12								44
7114 >	z	,			1, 1, 1				2 1
	23	1 00		7 1 6	7 4 7 7 0 17				9.7
	Ц	2	·£	`e	2	£	2	ъ Ъ	2
	HOUR	fe F2	F2	L	M(3000)F2	f8 F1	TO E		fo Eo
d <sub>2</sub>	Ĭ	O C C C C C C C C C C C C C C C C C C C	S S S S S S S S S S S S S S S S S S S	0 F 0 0	9533	CNT	G FN	ONT	CAT
UPPSALA, SWYIEN	8	1 2 01		2: : 1	12, 1		,	7.	29 3
- A	8		2	\$ 18 d	* * *			4"	n .
5	2 03	1.24	7 T T	5.55	, ,			4.	5 7
	8	, ) ;;	3 45.5	7, 7, 7,	3 3 3 3			41	3.2
	8	1 . 1 1	:13	3.53	1. 1. 2. 2.	1.	* *	1, 1	5 ,
	8	1 7 7 7	1834	17.7		~ 4	- B	, D	2.2
.6.89	0.0	Drum ful J	0100	5433	25 JK	, r		2.8	37.
******	80	077	1772		7 4 X	; ;		5.7	7.5
17.6E	8	11 10 2	1-120	9 1 2	- 10		1.5		P .*
ť	0	1277	1 1 4	5* 52	20,2		. 4	7.7	E *
t	=	1 13	25.00	4 14	2 1 27	2 ° 2 ° 2 ° 2 ° 2 ° 2 ° 2 ° 2 ° 2 ° 2 °	50		2 4
	1,2	1 1 8 9	34.0 47	1110	80 +8	; c	12 24	1 14	2.7
	13 (4	7.773	2. 11	1 111	677	1 33		. "	31 31
	5	1441	4000	141)	00 T	34.3.		, ~	3 1 3 1
	9	+ + 2 7	27.72		27.48	1,6	232	100	77 7
	~	7.73	242	1733	53.75	55	262	100	8.6
	92	4 - 5 5	135	3 - 13	310	370	30	100	ž m
	6	1 400	B 1 . 6	2,11	310	340	230	110	3.7
	50	* 195	000	94.03	300		170	9 9	30
	21 3	3648		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	370 2		3.5	110	2.
TIME	2	4 4 4 4		245 25 31 3 255 26 245 26	290 29 300 30 290 28		5 6	10 4 10 4	7 87 5
TIME 15.06	12	1222		250 30 265 245	290 280 280		90		24

15.0£ 55

TIME

8 5 7

6.9

5.0 22

23

# 0.1 500

146.5%. 6.751 8

# 1.

0.00

7 \*

250

7.7

310

315

96.4

7 = 3 ° 0 =

SOTTENS, SWITZERLAND	8	CNT 25 CNT LO	OME CO CO CO CO	CNT CONT	CMT CO	MED	MED	MED	MED
	HOUR	fo F 2	h'F2	r.	M(3000) F2	1404	To E	n, E	to Es
	_	•							
0.0	23	2.50		f. 1					-
- N	22	v		\$, ~					2 3
	2	95		, ·					~
	&	€ =		4.3					r p
	9	o i		9.3					7.4
	ő	D 1		5					÷ 5
	100	n 1		٠,					22
	9	7.		; 3					4.7
	6	*1 1							2.5
	4	'n .		1.7					- 5
	ē	7.4							
	-12	ř .		, «.					2.5
.`	=	0 -		24					5.
10 d	0	£ *		£ ?					¥
150.0N4 14.6E1	8	* -		*,					* * *
*3N.4	8	1.1		. :					* 3
053	40								2.7
	8	21		;					3.7
47	90	P (1)		::					- 0
DVAX 1	8	3 7							4.0
PRJHONICE. ZECHOSLOVAKIA	03	5.0		4, 1					0.5
, ZE	0.5	2		10					1.2
NICE	ô	1 1		4, 7					1,5
PRUHG	00	7.4		a. 1					5.4
		CNED	CNTC	CNT	# 33	CNT	MED	MED	MED
	HOUR	to F.2	h' F2	r.	M(3000) F2	fo F I	fo E	ع. ع.	fo Ea

	SECONDS.	
	MC IN 30	
	AC TO . 5.0	
	SWEEP 1.0	

JULY: 1962

Column   C	### 19   19   19   19   19   19   19   1	## 1	135 136 136 137 137 137 137 137 137 137 137 137 137	HOU		WINNIPEG. CANADA	PEG.	CANAD	80	8	8	8	149.9h,		97.4W)	٥	=	2	2	<b>z</b>	12	9	-	100	2	50	2	11 Mc	 90.0w	HOUR		9						JJUINSRUH/RUGEN.		JJ_[USRUH/RUGEN+ GERMANY   00 01 02 03 04	JJJ_[USRUH/RUGEN+ GERMANY   00 01 02 03 04 05 06	JJUIUSRUH/RUGEN+ GERMANY 00 01 02 03 04 05 06	JULIUSRUH/RUGEN, GERMANT 154,6N,	JULIUSRUH/RUGEN, GERMANY 154,6N	JJULIUSRUH/RUGEN* GERMANY (54.6N* ,3.4t)	00 01 02 03 04 05 06 07 08 09 10	JULIUSBUH/RUDEN, GERMANY 154.6N. 33.41)	JUNTEGROMPROSEN, GERMANY 154,6N4 ,3,447)    00 0  02 03   04 03 06 07   08 09 10   11	134_14_514_474_1664_4 GERMANY 154_6814 .34_11   12 13 14	JULTUSTRUKPUSEN, GERMANY 154.6N, 33.42)	33414581447816654, GERMANY 154.4814 , 33.417   69 09 10 11 12 13 14	33414581447816654, GERMANY 154.4814 , 33.417   69 09 10 11 12 13 14	134_14_514_474_1664_4 GERMANY 154_6814 .34_11   12 13 14	JULIUSBIRH/RUGEN, QERMANY 154-6N1, 33-41)	JULIUSBUHRUGUE, GERMANY 154.6N1 .3.4t) 1 12 13 14	JULIUSBUHFIDUEN, CERMANT 15%-6N, 13%-17   12 13 14 13 16 17 18 19 80 21	JJJ. [165804/18U.05Ev. 0 ERMANT [54-6N4 . 3.4-61]
10   10   10   10   10   10   10   10	1	10   10   10   10   10   10   10   10	1	1	SE 23		34 25 25 25 25 25 25 25 25 25 25 25 25 25	35 35 37 27	30 25 35 27	32 32 36 36 36 36 36							525	5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9000									 288	10 F2		SE SO	CNT 28	3.6	36 37 28 27	36 37 35 28 27 27	38 37 35 31 28 27 27 27	36 37 35 28 27 27	38 37 35 31 28 27 27 27	38 37 35 31 30 28 27 27 27 27	36 37 35 31 30 31 26 27 27 27 27 27	36 37 35 31 30 31 40 26 27 27 27 27 27 29	36 37 35 31 30 31 40 43 26 27 27 27 27 29 28	36 37 35 31 30 31 40 43 46 28 27 27 27 27 27 29 26 28	36 37 35 31 30 31 40 49 48 52 28 27 27 27 27 27 29 28 28 28	26 37 35 31 30 31 40 49 46 52 56 59 28 28 27 27 27 29 28 28 28 28 28 28 28 28 28 28 28 28 28	26 37 35 31 30 31 40 49 46 52 56 59 28 28 27 27 27 29 28 28 28 28 28 28 28 28 28 28 28 28 28	26 37 35 31 30 31 40 43 46 52 56 59 62 28 28 27 27 27 27 29 26 28 28 28 28 28 29 29 29	26 37 35 31 30 31 40 43 46 52 56 59 62 61 61 61 62 58 59 59 56 59 59 59 59 59 59 59 59 59 59 59 59 59	26 37 35 31 30 31 40 43 46 52 58 59 29 29 29 29 29 29 29 29 29 29 29 29 29	26 37 35 31 30 31 40 43 46 52 56 59 59 62 61 61 60 61 28 62 58 27 27 27 27 27 29 28 28 28 28 28 28 28 29 29 29 29 29 29 29	26 37 35 31 30 31 40 63 68 28 59 59 62 10 10 00 11 10 10 10 10 10 10 10 10 10	26 37 35 31 30 31 40 43 46 52 58 59 62 61 61 60 61 61 57 28 58 59 59 59 59 59 59 59 59 59 59 59 59 59	26 37 35 31 30 31 40 43 46 52 56 59 62 61 61 60 61 61 57 59 29 29 31 32 31 32 31 40 43 66 22 56 29 62 61 61 60 61 61 57 59 29	26 37 35 31 30 31 40 43 46 22 59 59 62 61 61 60 61 61 57 59 59 59 58 28 27 27 27 27 29 29 29 29 29 29 29 29 29 29 29 29 29	26 37 35 31 30 31 40 43 46 52 56 59 62 61 61 60 61 61 57 59 29 29 31 32 31 32 31 40 43 66 22 56 29 62 61 61 60 61 61 57 59 29	26 37 35 31 30 31 40 43 46 22 59 59 62 61 61 60 61 61 57 59 59 59 58 28 27 27 27 27 29 29 29 29 29 29 29 29 29 29 29 29 29
	No. 10.   1.   1.   1.   1.   1.   1.   1.	No. 10.   10.	10   10   10   10   10   10   10   10		CNT	1						1	+				+	390	700	380		-		1 "					T	h' F2	CNT	c								red		0 % 0 %		900	360 375	360 375 325 8 12 12	360 375 325 350 325 8 12 12 14 16	360 375 325 350 325 320 8 12 12 14 16 12	360 375 325 350 325 320 330 8 12 12 14 16 12 15	360 375 345 350 325 320 330 330	360 375 325 350 325 320 330 8 12 12 14 16 12 15	360 375 345 350 325 320 330 330	360 375 345 350 325 320 330 330	360 375 345 350 325 320 330 330	360 375 345 350 325 320 330 330	360 375 345 350 325 320 330 330	360 375 345 350 325 320 330 330
		No.	1		•		300	300	+				+						200							+			23	lu. Tat	ON CONTROL	288		240	240 249	295 28 28	245 290 28 28	295 290 285 28 28 27	245 290 28 28	245 290 26: 273 250 28 28 27 27 29	E E E E E E 295 240 240 240 29 29 29	245 290 26: 273 250 28 28 27 27 29	E E E E E E 295 240 240 240 29 29 29	E E E E 295 250 250 240 220 28 28 27 27 29 29 29 29	E E E E E E E E 240 220 215 25 25 25 25 25 25 25 25 25 25 25 25 25	L E E E E E 273 250 240 220 215 213 210 215 25 29 29 29 29 29 29 29 29 29 29 29 29 29	E	255 250 265 273 250 240 250 215 213 210 210 210 215 25 28 29 29 29 28 29 28 29 29 29 29 29 29 29 29 29 29 29 29 29	25 20 26 27 27 250 240 220 215 213 210 210 210 220 220 220 220 220 220 220	\$ 55 20 26 27 27 250 240 220 215 213 210 210 212 225 225 25 25 25 25 25 25 25 25 25 25	ES E E E E ST 273 250 240 220 215 213 210 210 210 212 226 245 230 25 25 25 25 25 25 25 25 25 25 25 25 25	E	E	E	E	ES 20 26 27 27 25 29 20 215 212 210 210 212 222 25 20 25 27 28 27 29 29 29 29 29 29 29 29 29 29 29 29 29	E
	Fig.   Fig.		Fig. 10   Fig.	M(3000) F2			00 00												0 0 4										15	M(3000)				27.5	279 270	270	276 280	270 280 27 27 27	270 280 280 31.	270 280 280 31, 315 27 27 22 29 29	270 280 280 31.	270 280 280 31, 315 27 27 22 29 29	270 280 31, 315 310 3 27 27 27 28 28 28	270 280 11, 315 310 310 310 310 27 28 28 48	270 280 280 11, 315 310 310 310 23	210 240 280 11, 315 310 310 314 335 330 27 27 21 47 29 20 46 29 26 27	270 280 280 41, 315 310 310 314 355 330 300 27 27 27 27 28 43 28 23 27 27 27	270 270 280 14- 315 310 310 310 355 330 330 330 300 300 27 72 27 27 27 27 27 27 27 27 27 27 27	210 280 380 11. 315 310 310 310 355 330 300 300 300 300 300 300 300 30	210 280 380 31, 315 310 310 310 31, 355 320 320 350 350 350 360 350 350 350 350 350 350 350 350 350 35	210 280 280 41, 315 310 310 310 355 338 320 350 350 350 350 350 350 250 250 250 250 250 250 250 250 250 2	275 276 286 11- 315 316 310 310 335 336 360 360 360 316 316 310 310 310 325 22 22 22 22 22 22 28 28 28 28 28 28 28	275 276 286 14- 315 316 310 310 355 336 306 360 360 360 310 315 355 27 27 27 27 29 28 28 28 27 27 27 29 28 28 28 29 29	210 280 310 315 310 310 310 335 330 300 300 300 310 310 315 310 310 310 310 310 310 310 310 310 310	210 280 310 315 310 310 310 310 335 330 300 300 300 310 310 315 310 300 25 25 25 27 27 27 27 29 29 29 28 28 28 28 28 28 28 28 28 28 28 28 28	210 280 380 31, 315 310 310 310 310 330 300 500 500 300 310 310 315 310 300 200 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2	210 280 310 315 310 310 310 310 335 330 300 300 300 310 310 315 310 300 25 25 25 27 27 27 27 29 29 29 28 28 28 28 28 28 28 28 28 28 28 28 28
No.	Marco   Marc	Fig. 2   1   1   1   1   1   1   1   1   1	Seete 14, ME TO 20, O ME IN 15 SECONS.  TABLE 30  TABLE 31 TO 30, SEE 14, ME TO 20, O ME IN 15 SECONS.  TABLE 32 TO 30, SEE 17		CNT											1		1	0.0			_						İ		fa F.	CNT								) o (	340	340 360	340 360	340 360 410	340 360	340 360 410 416 430	340 360 410 410 430 430	340 360 410 410 430 430 440	340 360 410 410 430 430 440 430	340 360 410 416 430 430 440 430 430 1 1 4 12 13 15 19 15 14	340 360 410 412 430 430 440 430 430 410	340 360 410 416 430 430 440 430 430 1 1 4 12 13 15 19 15 14	340 360 410 412 430 430 440 430 430 410	340 360 410 412 430 430 440 430 430 410	340 360 410 412 430 430 440 430 430 410	340 360 410 412 430 430 440 430 430 410	340 360 410 412 430 430 440 430 430 410	340 360 410 412 430 430 440 430 430 410
N	This color	NEE   1, to ME TO 20, to ME IN 19 SECONOS.   NEE   1, to ME TO 20, to ME IN 19 SECONOS.   NEE   1, to ME TO 20, to ME IN 19 SECONOS.   NEE   1, to ME TO 20, to ME IN 19 SECONOS.   NEE   1, to ME TO 20, to ME TO	No. 10   10   10   10   10   10   10   10		CNT					-								34.0	15.0									4		5 E	CNT	-					=	1135	100	155 205	155 205 250	155 205	155 205 250	155 205 250 265	155 205 250 265 3 5 10 21 28 23 23	155 205 250 265 3wc 315 325 10 21 28 23 23 23 25	155 205 250 265 300 315 325 315 10 21 28 23 23 23 25 25 21	155 205 250 265 30C 315 325 315 335 10 21 28 23 23 23 25 21 22	155 205 250 265 3WC 3L5 325 3L5 335 323 10 21 22 28 23 23 23 23 25 25 21 22 25	155 205 250 265 340 315 325 31 33 323 305 10 21 22 23 23 23 23 25 21 22 25 25 25	155 205 256 285 345 315 325 315 35 323 305 259 10 21 28 23 23 23 23 25 25 22 22 22 25 25 25	15 25 250 250 250 250 21 21 22 25 23 23 23 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	155 255 256 265 34c 315 325 315 335 343 355 25 25 25 25 25 25 25 25 25 25 25 25 2	15 25 250 250 250 250 21 21 22 25 23 23 23 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	155 255 256 265 3wc 3t5 325 315 315 345 350 265 280 240 245 10 21 28 28 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	155 255 256 265 3wc 3t5 325 315 315 345 350 265 280 240 245 10 21 28 28 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	155 255 256 265 3wc 3t5 325 315 315 345 350 265 280 240 245 10 21 28 28 23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25
Selective in the residue in the re	See   1, o M. To 20, o M. C   M 15 SECONDS.	Face   1-6 Med   10   10   10   10   10   10   10   1	SMEEP 1.6 ME TO 20.0 ME IN 15 SECONDS.  TABLE 9.1 ME NO 00.1 ME TO 20.0 ME IN 15 SECONDS.  TABLE 9.2 ME TO 20.0 ME IN 15 SECON		CNT																									,e	CHE																										
TABLE   13   13   13   13   13   13   13   1	TABLE 83  JULY INSTRUMENTAL DEPARTMENT TO 20.0 OF COT OT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT OF COT O	TABLE 83  TABLE	TABLE 83  TABLE		MED																									fo Es	CANT		E 13 28		2 2	12 1 28 2	12 28	12 13 28 . 26	12 E E 13 16 28 2.2 2.1	12 13 28 . 26	12 E E 13 16 28 2.2 2.1	28 20 21 16 18	12 E E E E E E S C 22 16 12	28 25 21 16 16 18 18 28 18 28 18 18 18 18 18 18 18 18 18 18 18 18 18	28 13 10 16 16 .8 28 31 5 28 2.2 2. 10 12 13 14 12	28 13 16 18 6 6 31 5 28 31 5 28 28 31 9	28 20 21 10 16 18 18 18 18 18 18 18 18 18 18 18 18 18	12 13 16 16 18 18 28 31 5 35 35 28 32 28 28 28 31 9 35 35 35 35 35 35 35 35 35 35 35 35 35	11	E E E E E E E E E E E E E E E E E E E	E E E E E E E E E E E E E E E E E E E	E E E E E E E E E E E E E E E E E E E	E E E E E E E E E E E E E E E E E E E	28 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	E E E E E E E E E E E E E E E E E E E	12 [1] [1] [1] [1] [1] [1] [1] [2] [2] [3] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	E E E E E E E E E E E E E E E E E E E
O O O O O O O O O O O O O O O O O O O	Col. Of   Col.	Co   Co   Co   Co   Co   Co   Co   Co	10   00   01   02   03   04   05   05   05   05   05   05   05			36.105	SRUH	/RJGEN	4. 3f R	A A A			4.0		3.46	ABLE												ř	0 . O E			003	MERA.		-0	STRAC	AUSTRALIA	STRALIA	STRALIA	STRACIA			131.05. 136.	(31,05, 136,85	TABLE (31,05, 136,05)	(31,05, 136,85	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE (31,05, 136,05)	TABLE 84	TABLE (31,05, 136,05)
New York   New York	No. 10   N	Column   C	25 27 28 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	HOUR		00	ō	8	0.3				$\rightarrow$	1 1	1	{	=	÷	5	4	13	$\mapsto$	1 1			Н	6		2	오	80	8	Н	8	I ~ I	ľ	8	8	$\vdash$	8	8	88 88 88	08 08 07	90 00 90 00	04 05 08 07 08 09	04 05 08 07 08 09 10	04 05 08 07 08 09 10 11	04 05 08 07 08 09 10 11 12 13	04 05 06 07 08 09 10 11 12 13 14	04 09 08 07 08 09 10 11 12 13 14 15	04 05 06 07 08 09 10 11 12 13 14	04 09 08 07 08 09 10 11 12 13 14 15 16 17	04 09 08 07 08 09 10 11 12 13 14 15	04 09 08 07 08 09 10 11 12 13 14 15 16 17	04 05 09 07 09 09 10 11 12 13 14 15 16 17 18	04 09 08 07 08 09 10 11 12 13 14 15 16 17 18 19	04 09 08 07 08 09 10 11 12 13 14 15 16 17 18 19 20
N.   P.   P.   P.   P.   P.   P.   P.	NF2	March   Marc	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S C S S	2 %	# F	0.0	32	5 2 2 2 2 4						0 10	807	5:4	200										35	10 F 2	CNT		1	7 0	10		0.20		0.20	2000	26 35	2 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	000 000 000 000 000 000 000 000 000 00	77 27 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 4 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	29 20 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28	29 90 90 90 90 90 90 90 90 90 90 90 90 90	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20 00 00 00 00 00 00 00 00 00 00 00 00 0	20 20 21 22 22 24 25 26 27 24 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	20 00 00 00 00 00 00 00 00 00 00 00 00 0	20 20 21 22 22 24 25 26 27 24 25 25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	20 20 31 35 20 27 24 20 25 20 25 20 20 20 20 20 20 20 20 20 20 20 20 20	20 25 51 52 52 24 20 55 54 50 55 55 56 56 57 57 57 57 57 57 57 58 55 58 55 58 58 58 58 58 58 58 58 58	20 25 31 35 30 30 37 37 37 30
March   Sec. 25   25   25   25   25   25   25   25	No.   1	Column   C	29		CNT				-				N					0,	ő,				, ,							h'F2	CNT												23 46 2 2 3 4 5 2 5 3	746 246 517	646 546 546 653	## 7 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	900 PRE 646 446 746 746 448	*** *** *** *** *** *** *** *** *** **	20	92 - 12 - 20 - 122 - 13 - 13 - 13 - 13 - 13 - 13 - 1	1.73 942 357 353 358 338 338 334 345 310 330	100 900 910 901 901 900 1000 1000 1000	1.73 942 357 353 358 338 338 334 345 310 330	100 900 910 901 901 900 1000 1000 1000	100 900 910 901 901 900 1000 1000 1000	100 900 910 901 901 900 1000 1000 1000	100 900 910 901 901 900 1000 1000 1000
000 25 25 25 25 25 25 25 25 25 25 25 25 25	MODOOFF2  23	MICHAEL 25 27 28 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	289 - 275 -					2.00							1			, e	2 2					1					C 82		MED CNT UG			( )	. 4"	12	2 T	1 5 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 T	2.5	120		17.	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7							20 1	6. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	25 - 25 - 27 - 27 - 27 - 27 - 27 - 27 -	10 (10 (10 (10 (10 (10 (10 (10 (10 (10 (	25 - 25 - 27 - 27 - 27 - 27 - 27 - 27 -	10 (10 (10 (10 (10 (10 (10 (10 (10 (10 (
	190 Co. 1	100 0.00 100 0.00 0.00 0.00 0.00 0.00 0	10 C C C C C C C C C C C C C C C C C C C					243										200											260	MIGOOO																											

March   Marc	1
No. 10.   No.	10   10   10   10   10   10   10   10
A	10
The control of the	10   10   10   10   10   10   10   10
	10   10   10   10   10   10   10   10
The control of the	
The control of the	1
The control of the	10   10   10   10   10   10   10   10
1	10   10   10   10   10   10   10   10
No.	10   10   10   10   10   10   10   10
The control of the	1
The control of the	10   10   10   10   10   10   10   10
No. 12   12   12   12   12   12   12   12	1
No. 10.0000   No. 10.0000	
	10   10   10   10   10   10   10   10
	N   F2   WED   CO   CO   CO   CO   CO   CO   CO   C
	N   F2   WED   CO   CO   CO   CO   CO   CO   CO   C
Comparison   Com	MOSCOW, U.S. 280 280 280 280 280 280 280 280 280 280
Compared   Compared	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1   1   1   1   1   1   1   1   1   1	SHEEP 1.4 MC TO 20.0 MC IN 1.5.5.4.8.  20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1   1   1   1   1   1   1   1   1   1	200 200 200 200 200 200 200 200 200 200
1   1   1   1   1   1   1   1   1   1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
1   1   1   1   1   1   1   1   1   1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
TABLE BE TO SEE	Z 221 20 20 20 20 20 20 20 20 20 20 20 20 20
TABLE BE TO SEE	
TABLE BE TO SEE	0 N 2 N 2
TABLE BE TO SEE	<b>8</b> 5004
TABLE BE 13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Able 86  200  200  200  200  200  200  200  2	
Able 86  200  200  200  200  200  200  200  2	
1	0 35.575 13.0 0.98 27 2.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1
6	- 2427 00 90 34 33 3
1	
6	
1	
6 6 11 12 12 11 12 12 12 12 12 12 12 12 12	
6 11 12 11 1 12 12 1 12 1 12 1 12 1 12	
6 113112 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
8 1741 00 00 00 00 00 00 00 00 00 00 00 00 00	
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	N

0	2	
c	Э	

		077	105 300 285 246 255 240 250 250 250 250 250 250 250 250 250 25	275 265 290 305 315 stm 310 310 310 315 330 320 235 32 31 32 32 25 25 25 38 25 38 32	0.66	00 20 35 35 35 35 35 35 35 35 35 35 35 35 35	3,1,50,20,20,20,20,20,20,20,20,20,20,20,20,20		TABLE 91	00 01 02 03 04 05 06 07 08 09 10 11 12 13	11 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		250 240 250 250 250 250 250 250 250 250 250 25	352 304 ce <sup>2</sup> 315 325 72 325 72 52 52 52 52 52 52 52 52 52 52 52 52 52	***************************************		5. 5
2 2 3 5 8 8 8 8 8 8 8 8	30 86 85 78 76 56 57 77 66 57 77 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 77 78 65 78 78 78 78 78 78 78 78 78 78 78 78 78	056 eff 045	285 255 240 255 235 240 250 250 240 225 220 220 220 220 220 220 220 220 22	290 305 315 400 310 310 310 310 310 320 290 275 20 175 20 275 20	> 1	280 330	405 105		TABLE ( 5.8N. 55.2W)	02 03 04 05 06 07 08 09 10 11 12	62 62 62 62 62 62 62 62 62 62 62 62 62 6	<u> </u>		2. 31. 42. 42. 33. 43. 43. 43. 43. 43. 43. 43. 43. 43	, ,	31 21	53
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	88 89 73 70 01 01 01 01 01 01 01 01 01 01 01 01 01	61 3 7 656 616 072	255 240 255 235 240 240 256 240 225 226 226 2	305 315 300 310 310 315 330 350 290 275	> 1	280 330	405 105		TABLE ( 5.8N. 55.2W)	03 04 05 06 07 08 09 10 11 12	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<u> </u>		315 425 425 325 325 454 145 435 435 (1)	, ,	31 21	53
2 2 3	89 79 70 00 72 72 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75	61 3 7 656 616 072	240 256 235 240 240 256 240 225 220 220 2	315 am 310 310 315 315 350 270 275 25 25 25 26 28 28	> 1	280 330	405 105		TABLE ( 5.8N. 55.2W)	04 05 06 07 08 09 10 11 12	2000 - 20	<u> </u>		12 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	, ,	31 21	53
	79 70 04 05 05 05 05 05 05 05 05 05 05 05 05 05	0.75 350 2.50 2.50 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3	256 235 240 250 240 250 240 250 220 220 220 220 220 220 220 220 22	45	> 1	280 330	405 105		TABLE 55.2W)	05 06 07 08 09 10 11 12	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>		25 25 25 25 25 25 25 25 25 25 25 25 25 2	, ,	31 21	53
2 2 2 3 1 1 0 20 20 20 20 20 20 20 20 20 20 20 20 2	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0.75 350 2.50 2.50 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3	235 240 240 25C 240 225 220 220 25 29 29 29 29 29 29 29 29 29 29 29 29 29	310 310 315 315 330 320 290 258 25	> 1	280 330	405 105		TABLE 55.2W)	06 07 08 09 10 11 12	# 1	<u> </u>	10 mm mm mm mm mm mm mm mm mm mm mm mm mm	200 - 200 -	, ,	31 21	53
1	200 - 100 -	0.75 350 2.50 2.50 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3	240 25C 240 225 220 220 220 240 240 240 250 250	310 310 315 330 320 290 275 26 27 27 28 29 27	> 1	280 330	405 105		TABLE 55.2W)	07 08 09 10 11 12	# # # # # # # # # # # # # # # # # # #	<u> </u>	# P P P P P P P P P P P P P P P P P P P	100 AN AN AN AN AN AN AN AN AN AN AN AN AN	, ,	31 21	53
	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	315 350	240 25C 240 225 220 220 220 29 29 29 29 29	310 315 330 320 290 275 28 25 27 28 28 27	> 1	280 330	405 105		TABLE 55.2W)	08 09 10 11 12	E C C C C C C C C C C C C C C C C C C C	<u> </u>	D T	E CO	, ,	31 21	53
	25 27 86 24 20 10c 25 52 65 56 56 56 59 50 99	315 350	25C 24n 225 220 220 26 29 29 27 25	315 330 320 290 275 25 27 28 28 27	> 1	280 330	405 105		TABLE 55.2W)	10 11 12	00000000000000000000000000000000000000	<u> </u>	B F F F F F F F F F F F F F F F F F F F	10 mm	, ,	31 21	53
	27 26 29 10c 22 20 20 20 20 20 20 20 20 20 20 20 20	315 350	240 225 220 220 29 29 27 25	330 320 290 275 27 28 29	> 1	280 330	405 105		ABLE	- 12	00 00 D	<u> </u>	P P P P P P P P P P P P P P P P P P P	,	, ,	31 21	53
2	26 24 27 10 22 10 27 10 69 103 113 113 113 113 113	315 350	225 220 220 29 27 25	320 290 275 28 28 27	> 1	280 330	205 1C5			2	00 B	7.6	1 B	*	, ,	31 21	53
	27 90 96 96 97 99 97 99 98 98 98 98 98 98 98 98 98 98 98 98	315 350	220 220	290 275	> 1	330	24		-		E541	7.6	4	§ 2	, ,	<i>j</i>	
	84 96 10c 27 19 22 88 103 113 78 90 99	35.0	220	275	> 1					-							
	98 10¢ 103 113 70 99									2	3000	· «	13.4	96	y 4	, :	44
		00	225	270	100	97	100			<u>*</u>	9953	5.5	2	e f,	2.4	ž *	¥
L		0.50	210	280	530	0.00	, G ,			e.	57.91		- A	1.3		Ţ	2 1
l	116 26 121 111	350	2000	290	2005	-16	105			2	25.75	5,5	X.	5.5		2	
ŀ	122 26 127 113	5 5	200	290	24	3,0	50.1			E	2341	£ 4 £ 40	111	1, 1	t'i	5	,1.
1	120 130 109	225	215	290	2,400	350	5,			ē	2000	2.5	1	ro es	2.7	. · · · ·	4.
	120	320	2 4 0	290		34.0	105			6	84465	2 1	1.	1 y	Σ ψ	3.5	1, 1
-	217 220 120 107	305	230	295	184	280	110			8	22000	ÿ=	3.5	2.1		. `	·
	105 24 113 98	300	250	290		250	110		-	ã	1011	e'	u s	0.0		1.1	111
	6 5 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		270	280		w -	w		38	22	#10 #10 # 11	4, 1	,	4 6			
	8 4 5 0 1 4 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		310	275					0 * 0	2	106		¢ ( )	6 P			
	fe F2	F 52	L.	M(3000)F2	10 F !	to E	h, E	to Es		HOUR	fo F2	h'F2	اد د	M(3000)F2	₩ F.	to E	P. E
	BF33	SPE SO	MED CAT US	PF2 MED GAT US	MED	MED	CALT	CMT		E 5	OFFO COT	CNT	CNT	FZ MED CNT UQ LQ	CNT	MED	MED
3	- 7		J	m					PARAN	8	90		25.2	8 4			
5	20		220	~					PARAMARIBO. SURINAM	ō	345		* X				
	38		250 3	2 562		240 2	5 5		sus sur	8	8 1 0 0 0 4 0 0 0		2 1	ģ. ·			
	6.27		330 2	265		28.0 2	120	· · · · ·	NAM	8	6 - 1 0		2 2	2:			
	\$ ==		12 290 2	305 2		280	114			8	\$ C. * 1		45	A 10			
	2 =		12 275 2	2 062		330	120			8	4 4 6 6		41.4	60 Z			
,	52.5		285 3	2 002		320 3	120 1			8	3000		14	T			
5	0.5		19 2	285 2		300	9 20	-	1 5.8N*	07	3.2		177	, , , , , , , , , , , , , , , , , , ,			
3	2 2 6 6		19 2	290 2		3	2			98	7 4 8 9		24	A -			
3	72		27.5	295 30		٠.	4		T. 55,2¥1	60	2537		# X X	4.17		,	
	26 2		25 23 23	25	1				TABLE	ō	3000	,	4	2 1			. 4.
+	270		250 25	310 31		2,4			6,	=	9977	90	3 A	33.		41	- : .
	29 2		250 25	310 31		270	~ )			2	112 1	35	4		J.	25	111
2	2.8		250 25	310 3.		-	~ 1			2	21 22 12 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	2001	4 ,	41	. 1	- i	
	17		250 24	315 3,						4	245	2 07 0 7	· ·	2.	7	2	
2	45 20 C		560	320							4400	687	,01	5.5	, T	i	-
1	~		~	-						9	27 133 1		10	7 4		2 4	
١										-	128 1 24 136 1	82	10	92	2 2	, ,	
-	-										126 1 27 130 .	310 2	12	200	4	5 5 5	2 2
				-						6	126 4	24	277	\$ ;	1	- (	
	ret									50	22. 2. 129. 114.	55.4	3.0	285		· :	77 67
				-					H H	2   2	121 1 24 125 1		32	m.			1
	~		_						0.0	22 23	22 16 123 124 124 83		245 250	305 305		4	-

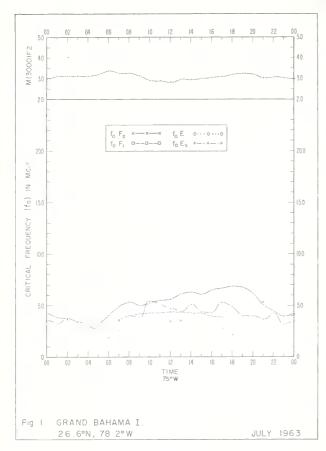
_	
9	1

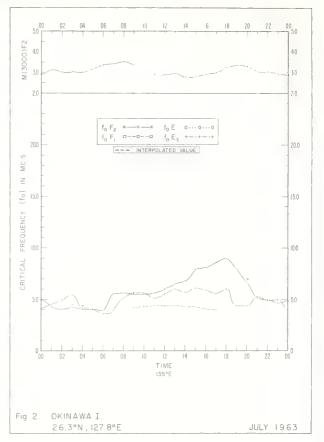
TAN E +4

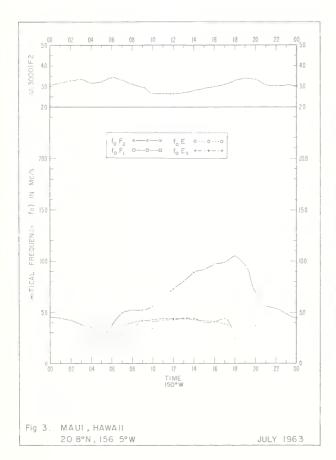
TAM . 23

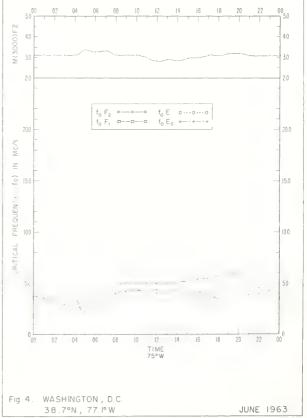
	TIME 165.0W
9.7	
TABLE 97	(21,25* 159,8WI
	NGA, COOK 15.

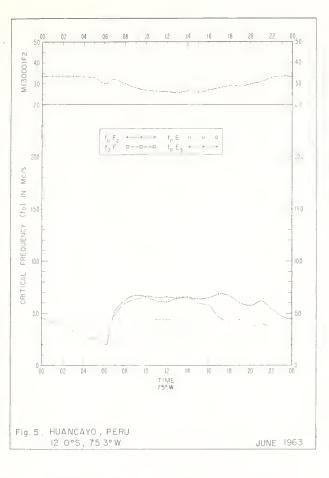
20000000000000000000000000000000000000	Column
A	The content of the
A	## 1
The control of the	## 1
Column	## 4
A	## 1
2	### 1
2	### 1
2	### 1
A	## 1
A	## 1
The control of the	S
Column   C	S
1	Second   S
Section   Sect	## 1
Company	## 1
1	## 1
1	Section   Sect
No. 10   10   10   10   10   10   10   10	A
1	Second   S
A	Column   C
No. 10.   No.	Second Second
No. 10.000   No. 10.0000   No. 10.000   No	### 14
N	2 0
Fig. 12   Fig.	Second   S
## Company   Fig. 1	Second   S
## CERT CONTROL   1	Second   S
TABLE 100 KC 10 C C C C C C C C C C C C C C C C C C	## 1
TABLE TOO NOT THE PROPERTY OF	March   Marc
3	TARE 100  TARE 1
3	TABLE 100  TABLE 100
3	TABLE 100  TABLE 100
1.0	11
SECONOS.  TABLE 100  TOTAL STREET TOTAL STRE	1
TABLE 100  TABLE 100	TABLE 100  TABLE 100
### 1997   1997	TABLE 100  TABLE 100
Column	TABLE 100  100  100  100  100  100  100  100
Column	THE TOTAL PROPERTY OF THE TOTAL PROPERTY OF
8 85	THE TOTAL PROPERTY OF THE PROP
8         60         50         50         8         50         9         8         50         9         8         50         9         8         50         9         8         50         9	THE CONTRACT OF STATE
Second   S	THE CO. 10.1 TO SEC. 10.1 TO SE
Second   S	######################################
Second   S	HILL    1986   1987   1988   1989   1
Column	10
	80 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
8 22 52 52 52 12 12 2 2 2 2 2 2 2 2 2 2 2	20 00 00 00 00 00 00 00 00 00 00 00 00 0
8 22 52 52 52 12 12 2 2 2 2 2 2 2 2 2 2 2	20 00 00 00 00 00 00 00 00 00 00 00 00 0
8 25 <u>25 25 55 55 55 55 55 55 55 55 55 55 55 5</u>	10
	887 01 57 67 88 88 88 88 88 88 88 88 88 88 88 88 88
	00 0 01 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

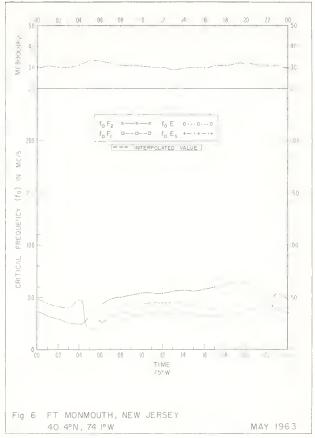


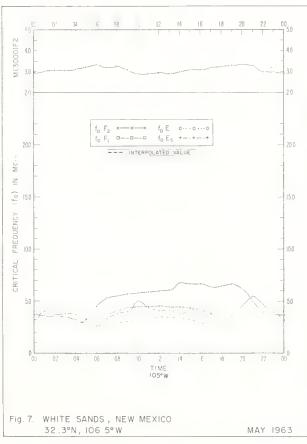


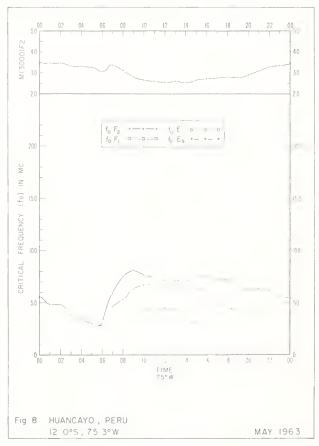


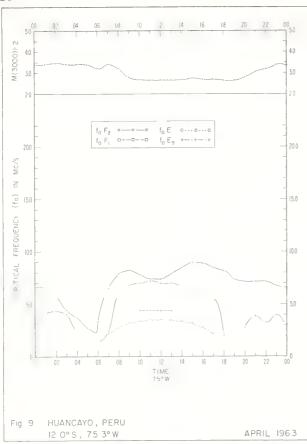


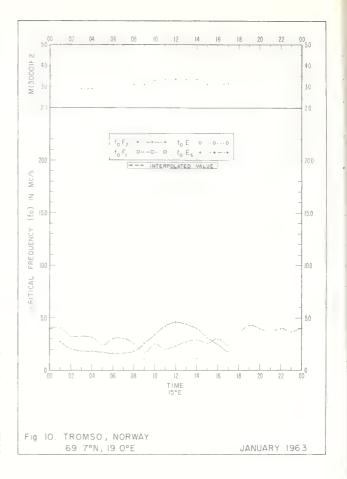


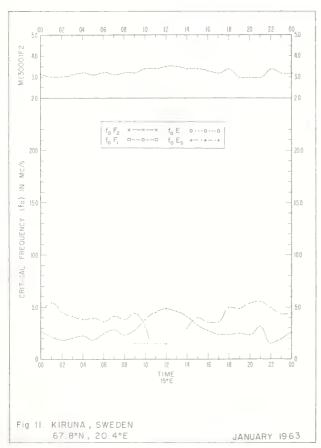


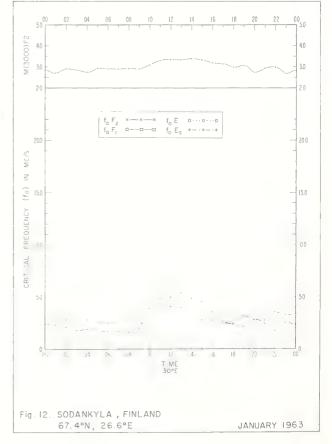


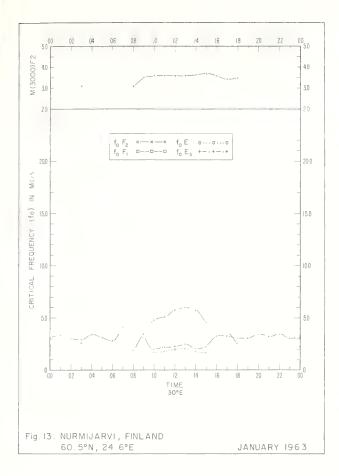


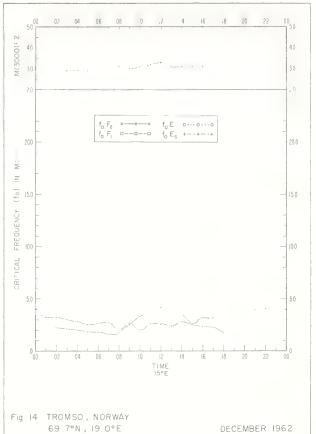


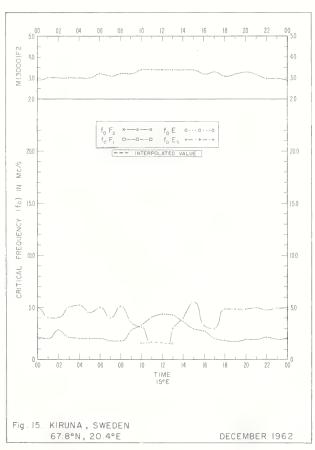


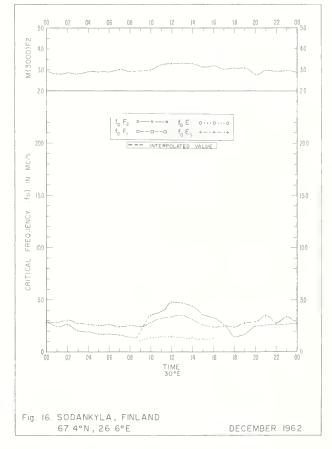


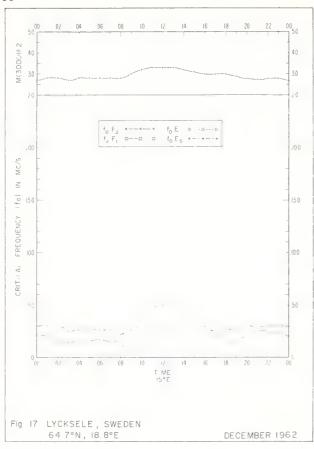


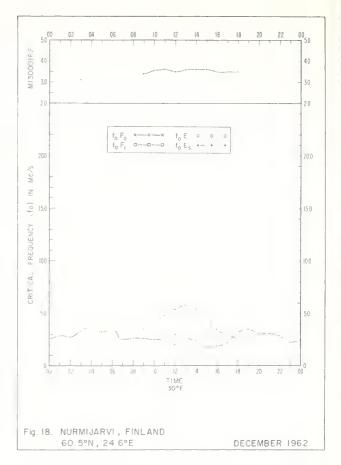


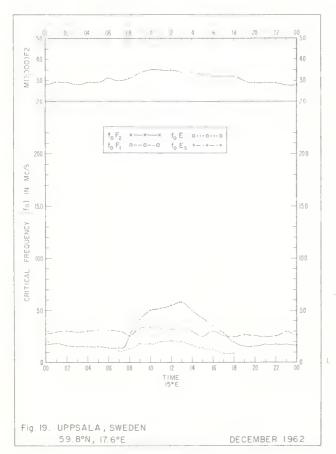


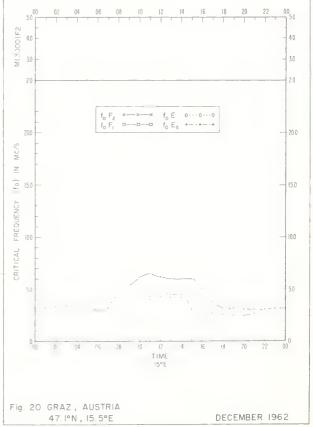


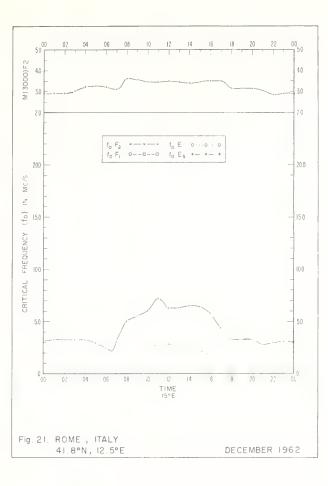


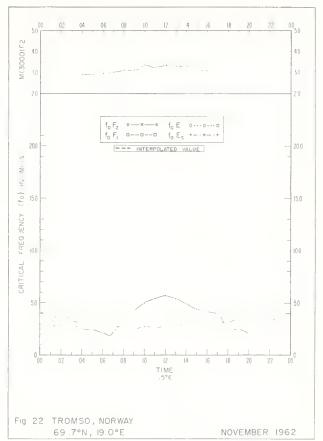


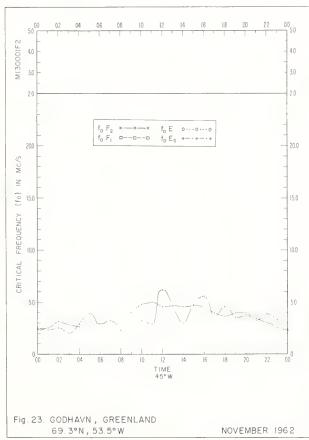


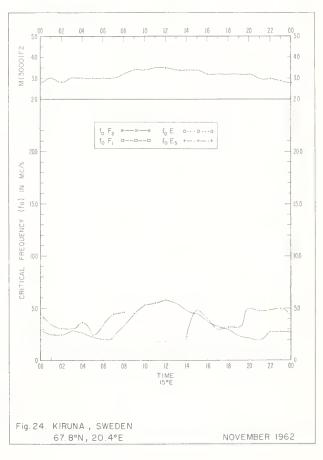


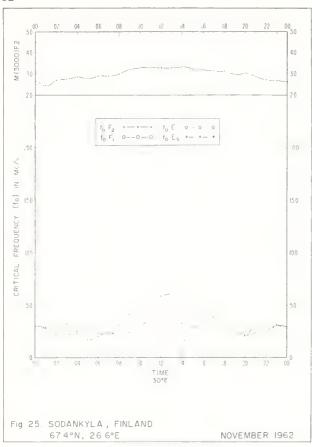


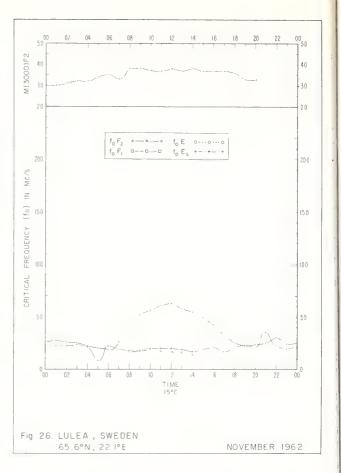


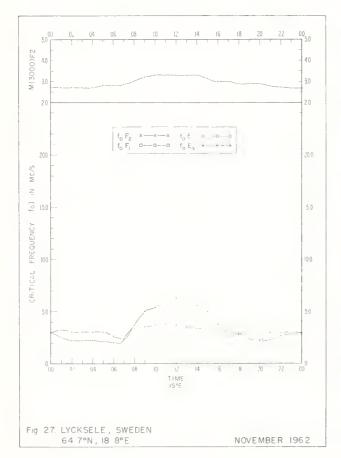


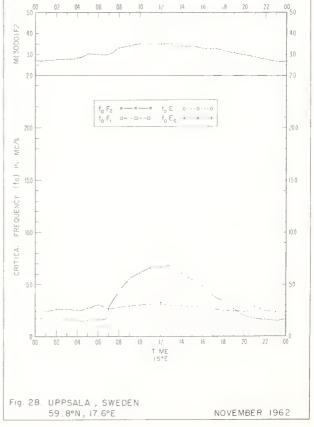


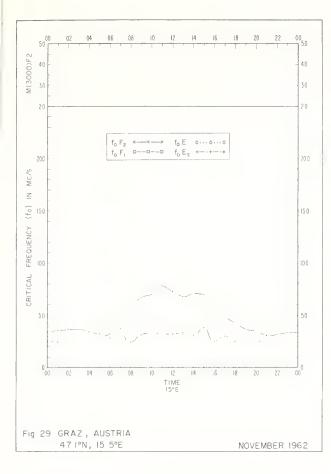


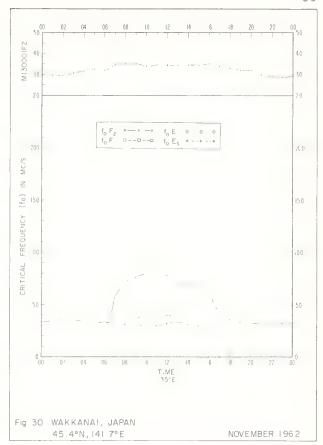


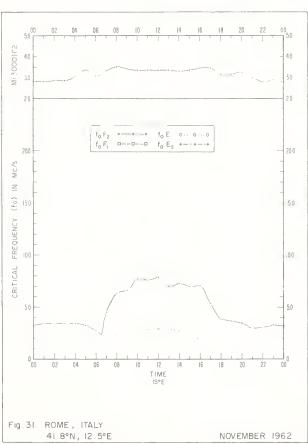


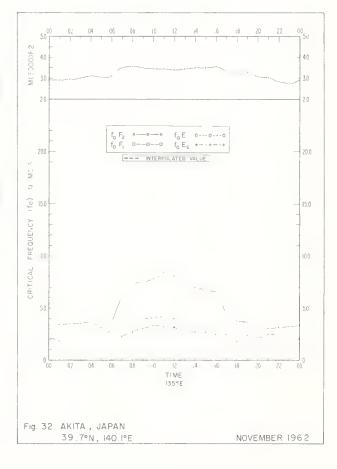


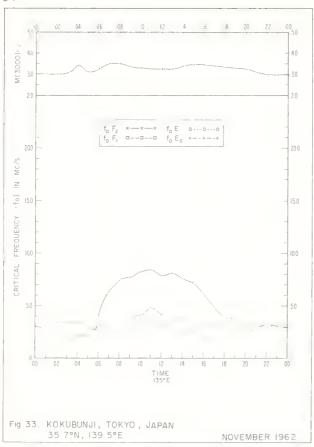


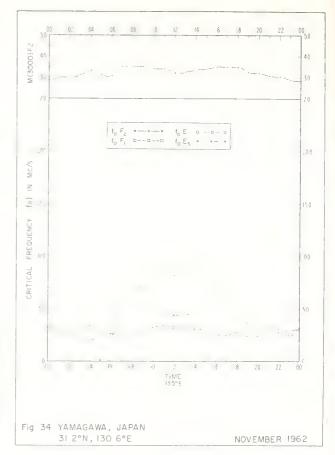


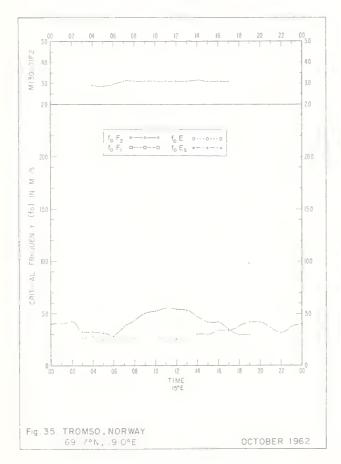


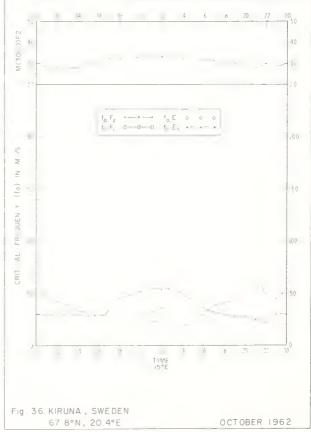


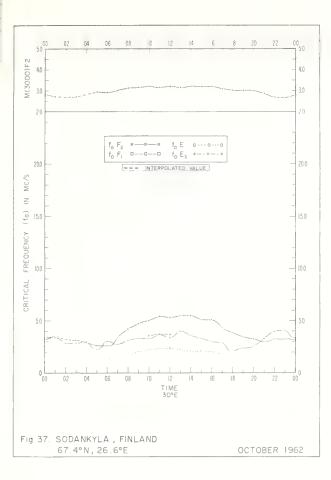


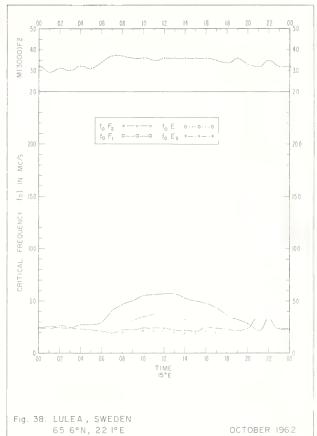


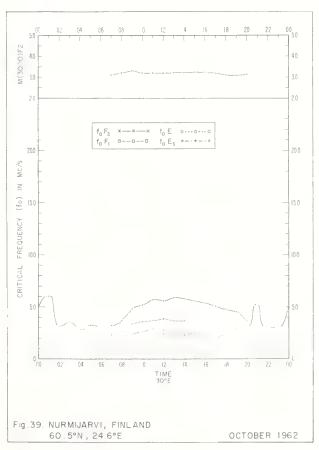


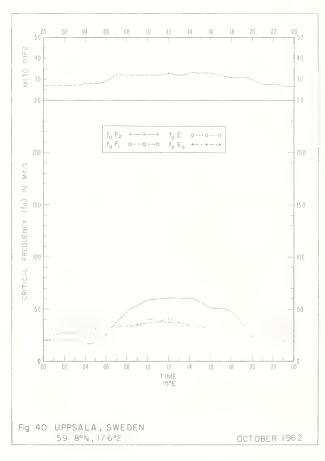


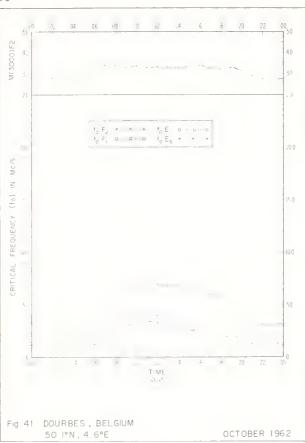


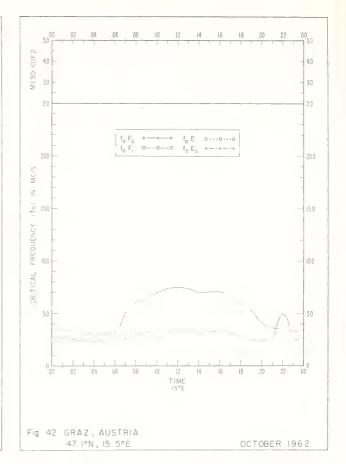


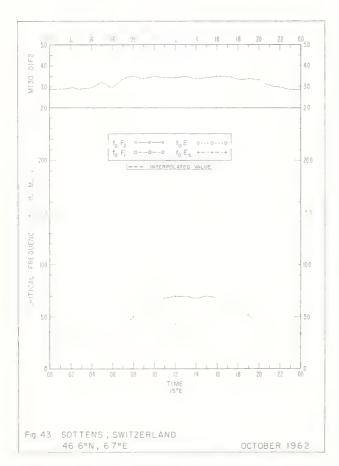


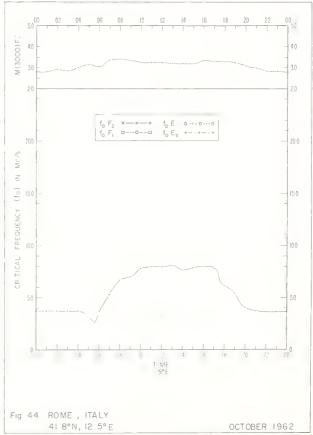


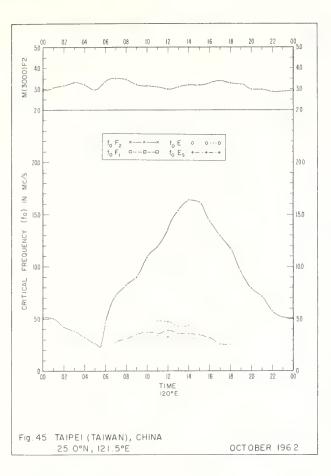


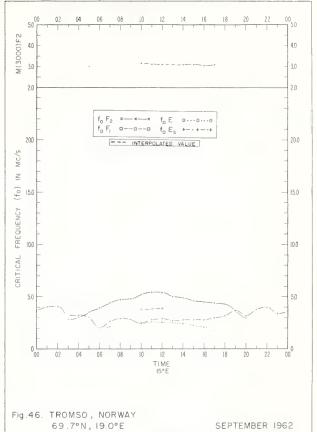


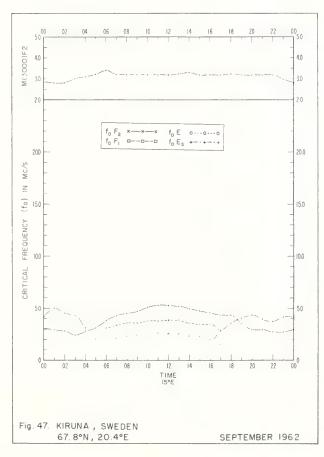


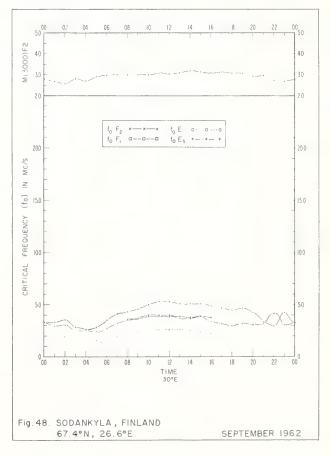


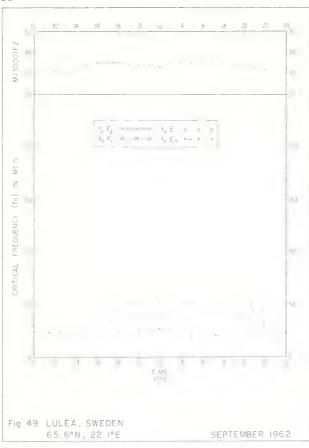


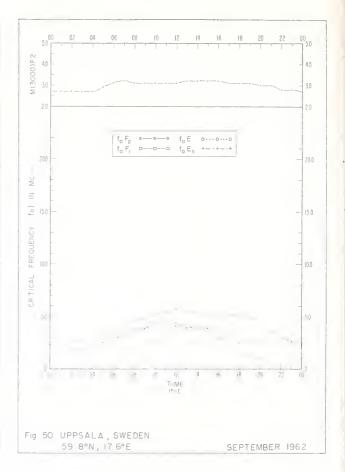


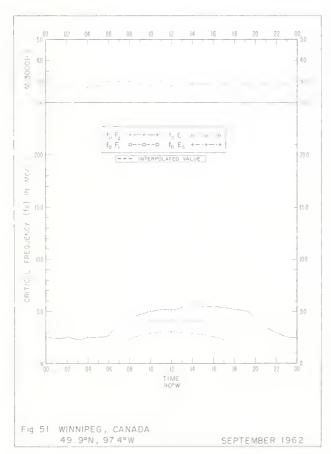


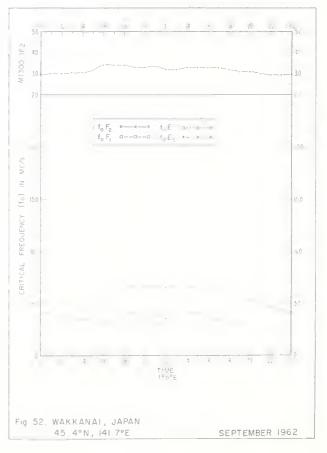


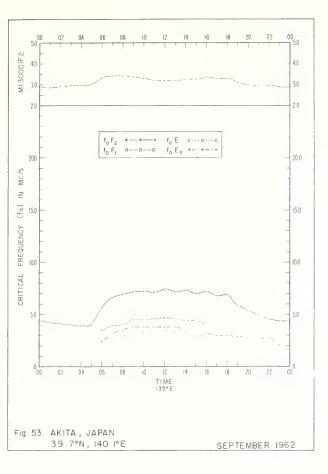


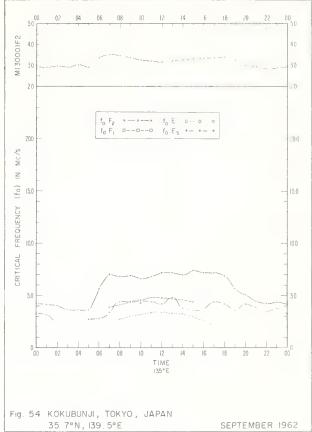


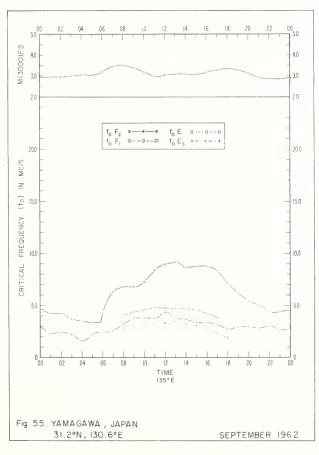


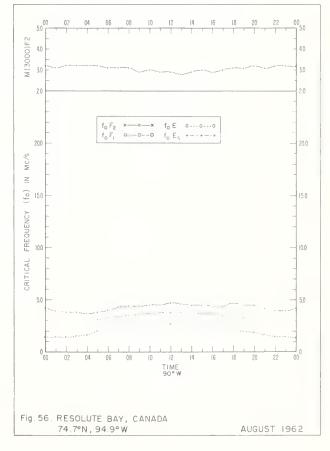


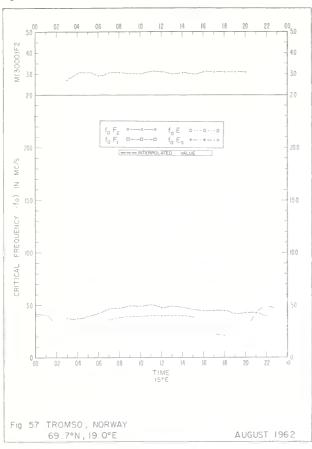


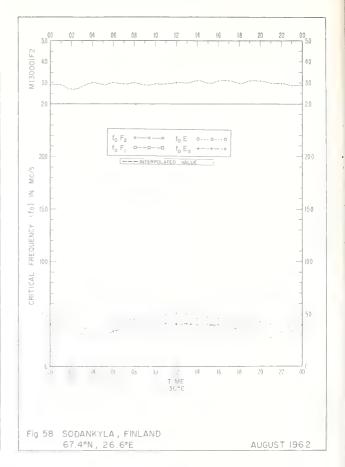


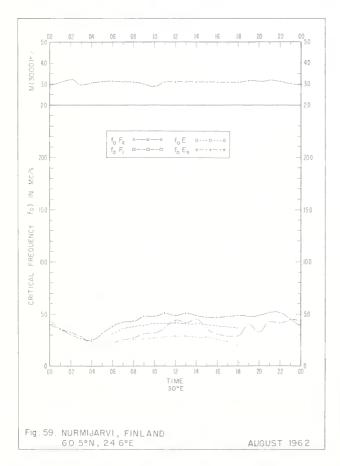


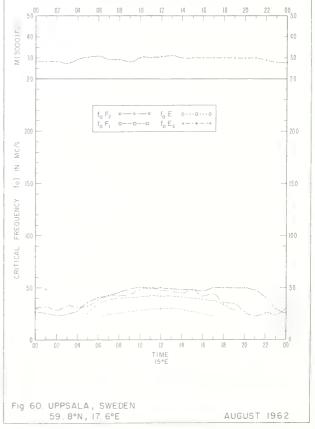


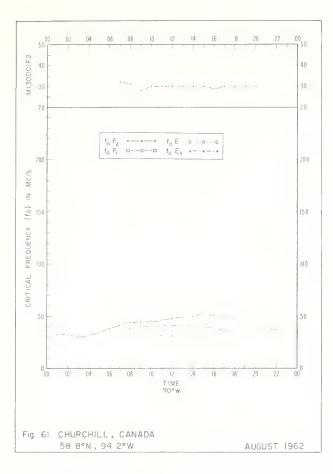


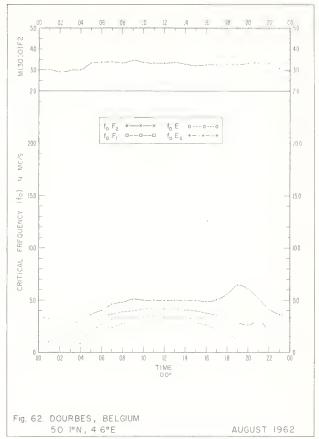


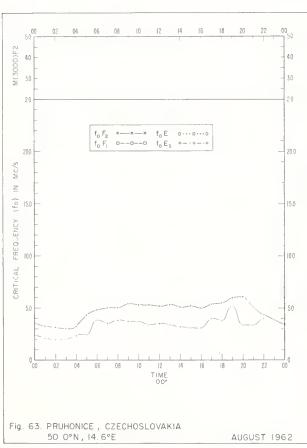


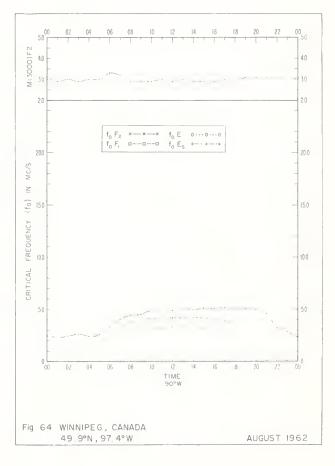


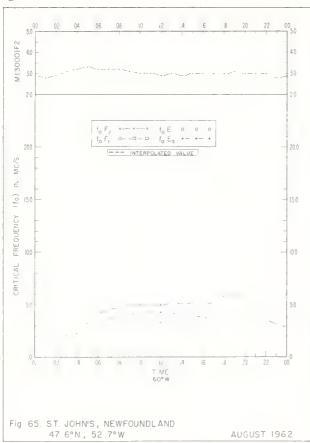


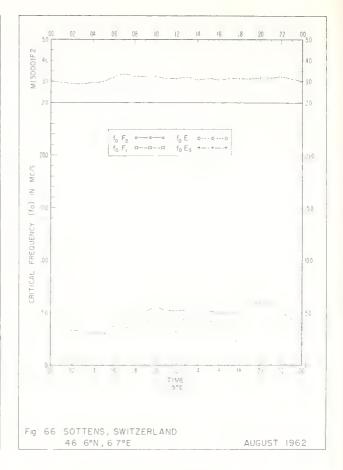


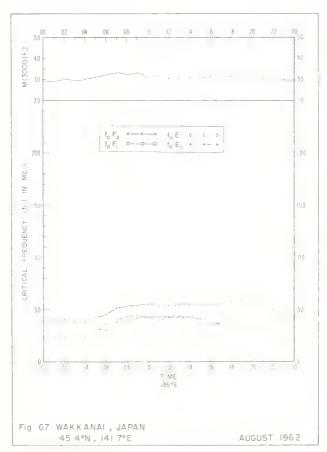


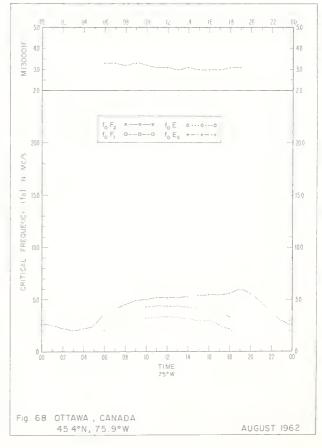


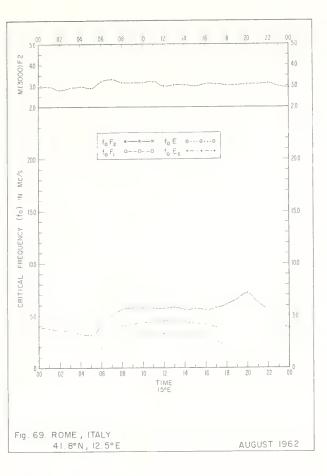


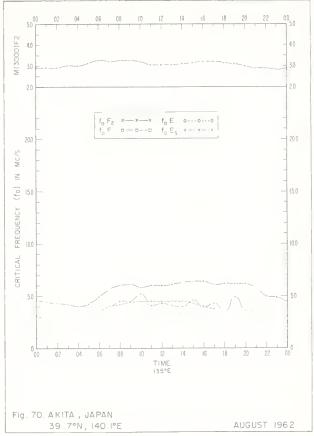


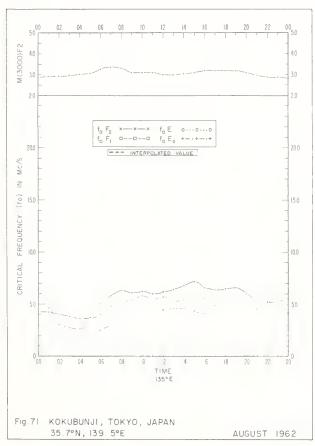


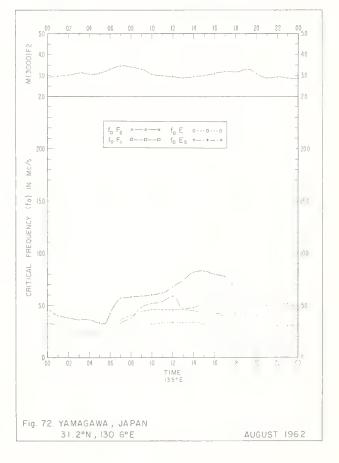


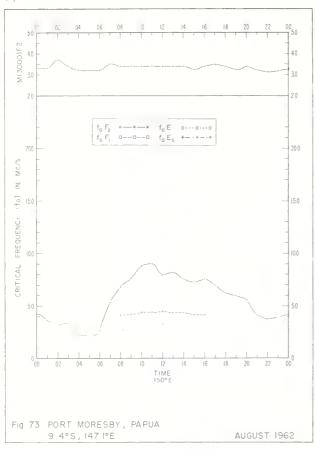


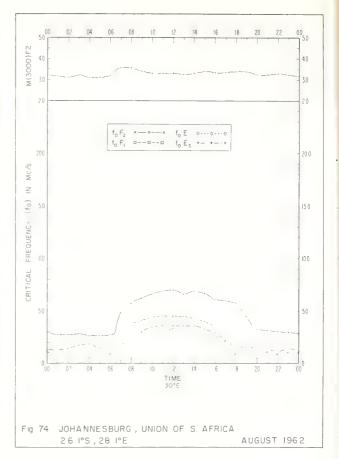


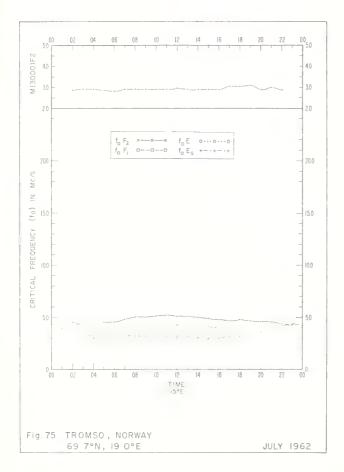


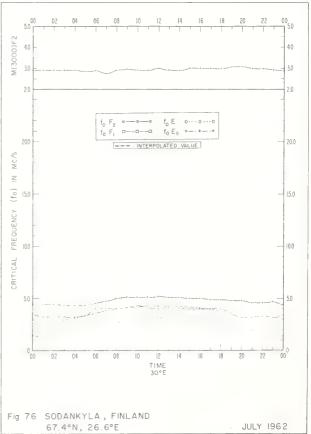


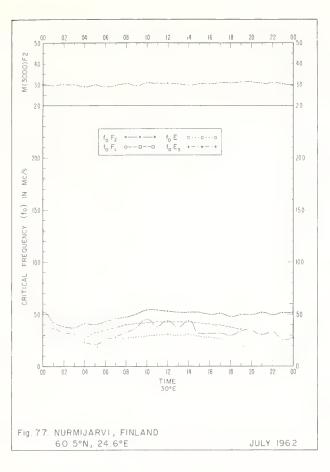


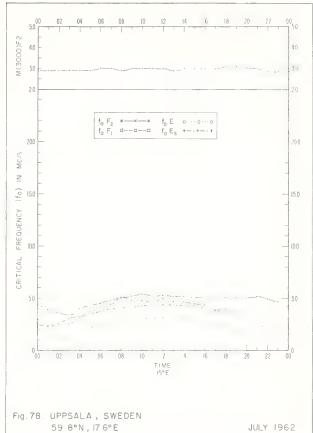


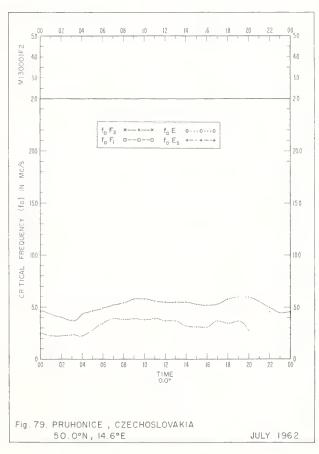


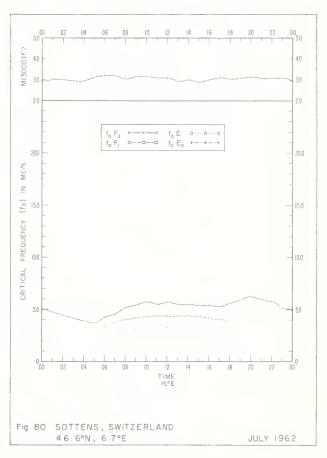


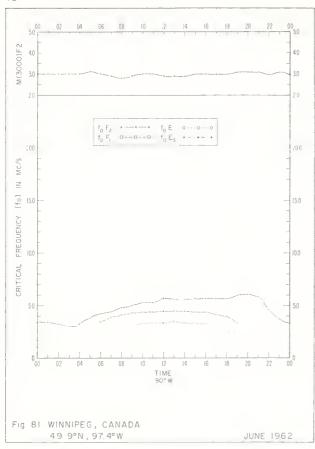


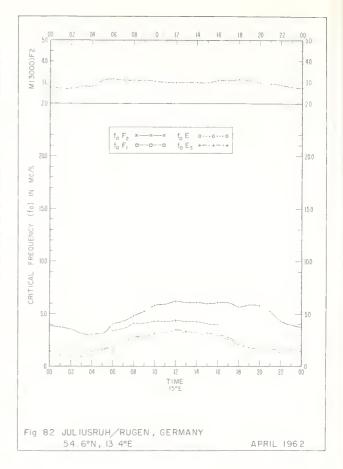


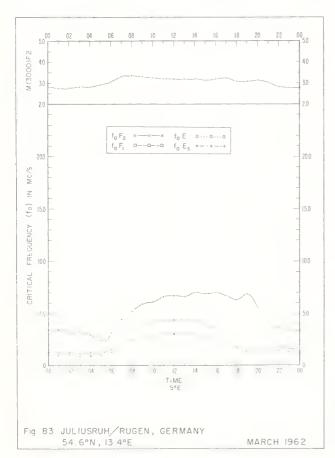


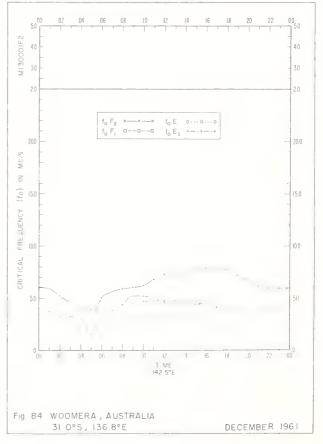


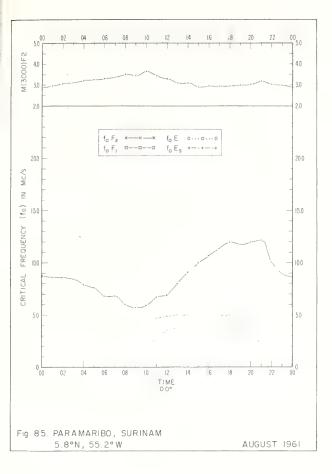


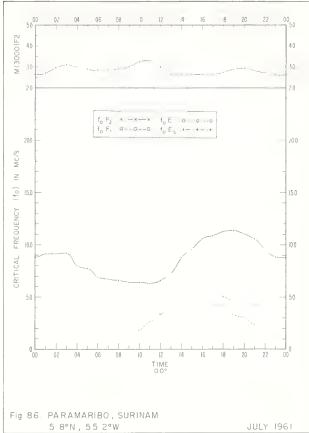


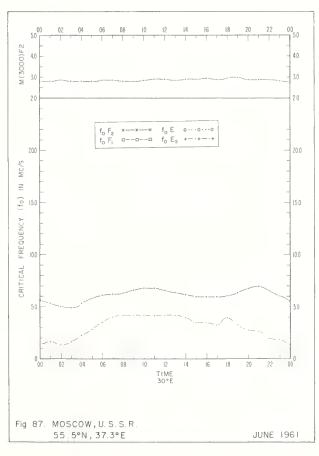


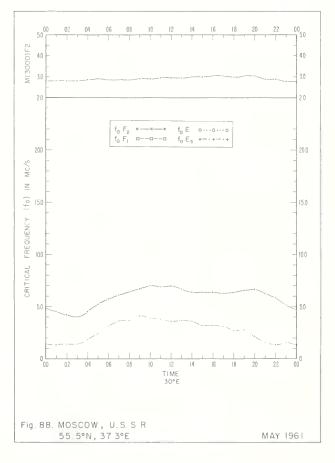


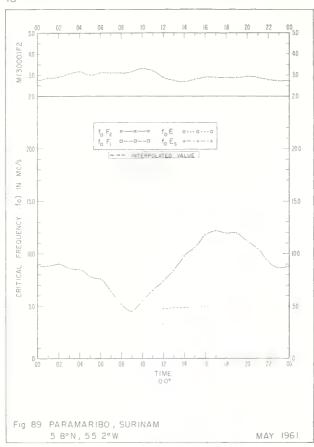


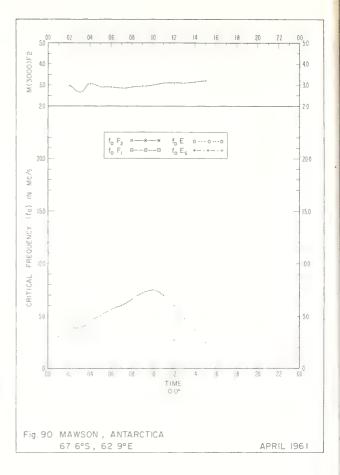


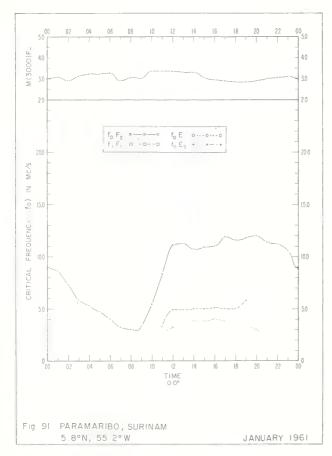


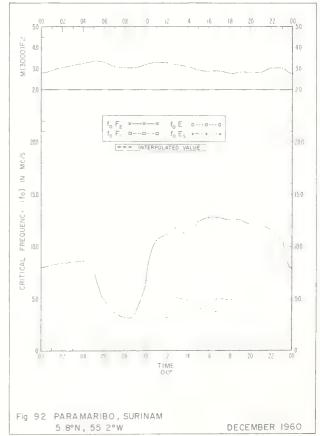


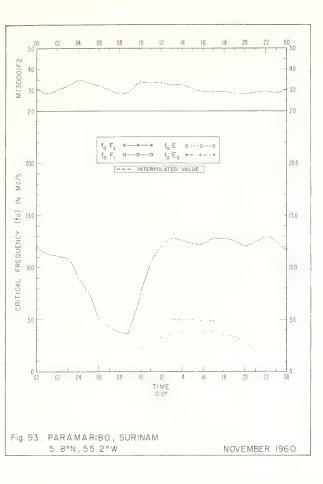


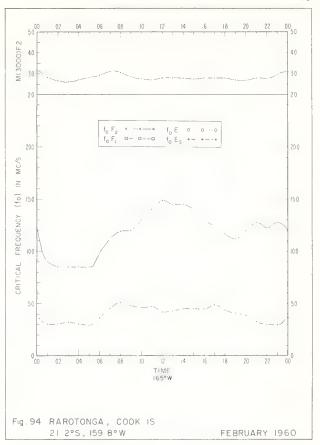


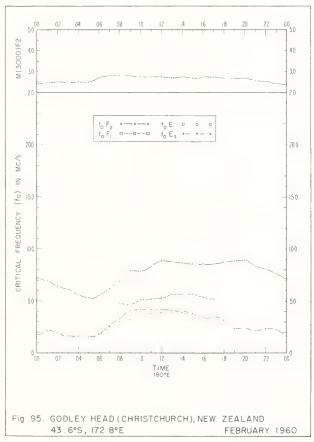


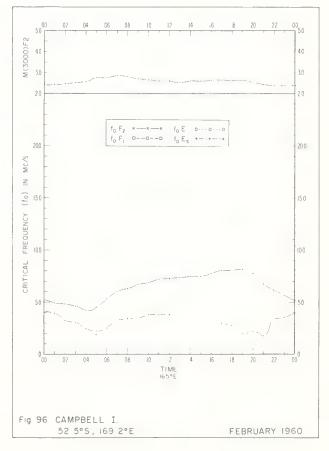


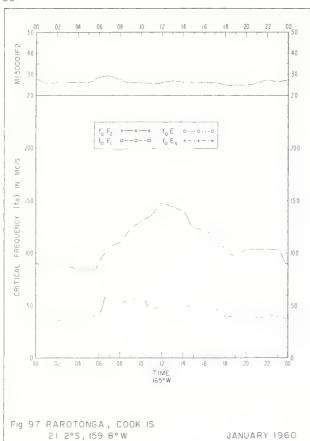


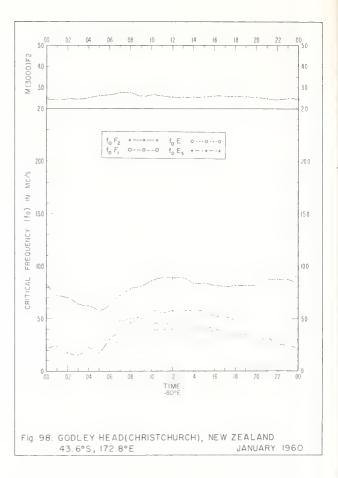


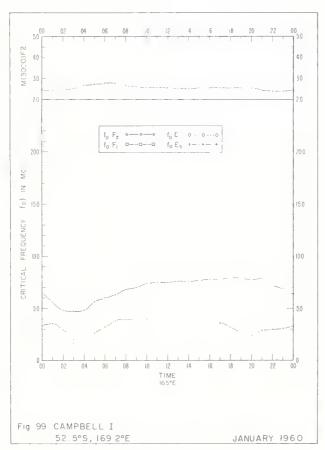


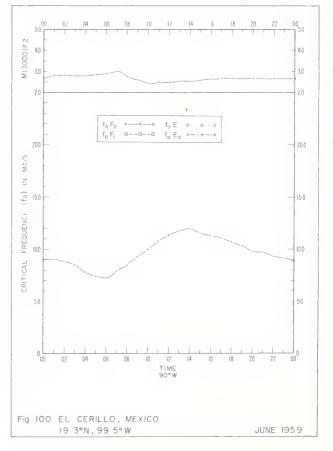












INDEX OF IONOSPHERIC	DATA	IN	CRPL F2	235
			PA	NGE
			TABLE	FIGURE
AKITA, JAPAN	1962	AUG.	18	43
	1962	SEPT		39
	1962	NOV.	8	33
CAMPBELL I.		JAN.	25	
	1960	FEB.	24	49
CHURCHILL, CANADA	1062	AUG.	16	4
CHURCHILL, CANADA	1962	AUG 6	10	4.
DOUDDEC PELCTUM	1062	AUG.	16	41
DOURBES, BELGIUM		OCT.	11	36
				400, 475
EL CERILLO, MEXICO	1959	JUNE	25	50
EL CENTELO FILENCO	2,	00112		<i>a a</i>
FT. MONMOUTH, NEW JERSEY	1963	MAY	2	27
		, , , ,	_	NACE OF
GODHAVN, GREENLAND	1962	NOV.	6	31
GODLEY HEAD (CHRISTCHURCH), N.Z.	1960	JAN.	25	50
	1960	FEB.	24	45
GRAND BAHAMA I.	1963	JULY	1	2:
GRAZ, AUSTRIA	1962			30
		NOV.	8 5	33
	1962	DEC.	2	30
HUANCAYO, PERU	1963	APR.	3	28
TIOANCATO FERO		MAY	2	27
	1963		2	27
JOHANNESBURG, UNION OF S. AFRICA	1962	AUG.	19	ly la
JULIUSRUH/RUGEN, GERMANY		MAR.	21	
	1962	APR.	21	46
MIDIMA. CHEDEN	1062	CEDT	1.0	13 19
KIRUNA, SWEDEN	1965	SEPT	. 12	37

	INDEX OF	IONOSPHERIC	DATA	IN	CRPL	F23	5
					TAE	PAG	E FIGURE
KIRUNA, SWEDEN			1962 1962 1962 1963	NOV . DEC .		9 6 4 3	34 31· 29 28
KOKUBUNJI, TOKYO	, JAPAN		1962 1962 1962	SEPT		18 14 9	43 39 34
LULEA, SWEDEN			1962 1962 1962	OCT.		13 10 7	38 35 32
LYCKSELE, SWEDEN			1962 1962			7 5	32 30
MAUI, HAWAII			1963	JULY		1	26
MAWSON, ANTARCTI	CA		1961	APR.		23	48
MOSCOW, U.S.S.R.			1961 1961			22 22	47 47
NURMIJARVI, FINL	AND		1962 1962 1962 1962 1963	JULY AUG. OCT. DEC. JAN.		20 15 10 5 4	45 40 35 30 29
OKINAWA I.			1963	JULY		1	26
OTTAWA, CANADA			1962	AUG.		17	42
PARAMARIBO, SURI	NAM		1960 1960 1961 1961 1961	NOV. DEC. JAN. MAY JULY AUG.		24 23 23 23 22 22	49 48 48 48 47 47

INDEX OF IONOSPHERIC	DATA	IN	CRPL F235	
			PAGE TABLE FIGURE	
PORT MORESBY, PAPUA	1962	AUG.	19	44
PRUHONICE, CZECHOSŁOVAKIA	1962 1962	JULY AUG.		45 41
RAROTONGA, COOK IS.		JAN. FEB.		
RESOLUTE BAY, CANADA	1962	AUG.	14	39
ROME, ITALY	1962 1962	AUG. OCT. NOV. DEC.	11	36 33
SODANKYLA, FINLAND	1962 1962 1962 1962	JULY AUG. SEPT OCT. NOV. DEC. JAN.	. 15 12 10 7	40 37 35 32 29
SOTTENS, SWITZERLAND	1962 1962 1962	JULY AUG • OCT •	20 17 11	42
ST. JOHNS, NEWFOUNDLAND	1962	AUG.	17	42
TAIPEI (TAIWAN), CHINA	1962	OCT.	12	37
TROMSO, NORWAY	1962 1962 1962 1962 1962 1963	AUG. SEPT OCT. NOV. DEC.	15	40 37 34 31 29
UPPSALA, SWEDEN	1962	JULY	20	45

	INDEX OF	IONOSPHERIC	DATA	IN CRE	PL F2	35
					PAC TABLE	
UPPSALA, SWEDEN			1962 1962 1962 1962 1962	SEPT. OCT. NOV.	15 13 10 7 5	40 38 35 32 30
WAKKANAI» JAPAN			1962 1962 1962		17 13 8	42 38 33
WASHINGTON, D.C.			1963	JUNE	1	26
WHITE SANDS, NEW	MEXICO		1963	MAY	2	27
WINNIPEG, CANADA			1962 1962 1962	AUG.	21 16 13	46 41 38
WOOMERA, AUSTRALI	A		1961	DEC.	21	46
YAMAGAWA, JAPAN			1962 1962 1962		18 14 9	43 39 34

## CRPL REPORTS

(A detailed list of CRPL publications is available from the Central Radio Propagation Laboratory on request.)

Catalog of Data.

A catalog of records and data on file at the U.S. IGY World Data Center A for Airglow and Ionosphere, Boulder Laboratories, National Bureau of Standards, Boulder, Colorado, which includes a fee schedule to cover the cost of supplying copies, is available upon request.

CRPL-F (Part A), "Ionospheric Data."
CRPL-F (Part B), "Solar Geophysical Data."

These monthly bulletins have limited distribution and are sent, in general, only to those individuals and scientific organizations that collaborate in the exchange of ionospheric, solar, geomagnetic, or other radio propagation data of interest to the CRPL. Others may purchase copies of the same data from the U.S. IGY World Data Center A for Airglow and Ionosphere, National Bureau of Standards, Boulder, Colorado.

"Ionospheric Predictions."

This series of publications is issued monthly, three months in advance, as an aid in determining the best sky-wave frequencies for high frequency communications over any transmission path, at any time of day for average conditions for the month.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price 15 cents. Annual subscription (12 issues) \$1.50 (50 cents additional for foreign mailing). (NOTE: Tested sets of punched cards of the predicted numerical

coefficients of numerical maps of the Ionospheric Predictions, for use with electronic computers, may be purchased by arrangement with the Prediction Services Section, CRPL, Boulder Laboratories, Boulder, Colorado.)

National Bureau of Standards Handbook 90, "Handbook for CRPL Ionospheric Predictions Based on Numerical Methods of Mapping." Price 40 cents.

National Bureau of Standards Circular 462, "Ionospheric Radio Propagation." Price \$1.25.

NBS Handbook 90 and NBS Circular 462 for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C.

